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Stress, Coping, Health Practices, and Health Status
in Enlisted and Officer Air Force Women with

Dependent Children

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BY

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THESIS

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I dedicate this thesis to my superb family.

The unselfish love and tremendous support of my husband, Douglas, and my daughter, Melinda, made it possible for this Air Force mom to survive and succeed in graduate school. (In the words of Charlotte, "This is my magnum opus", Melinda, aside from you, of course.) Thank you, loves. I also include my very special mother, Betty, in this dedication. Together with Dad, you taught me the basics of nurturing others, setting the example that fostered my interest in nursing, the profession I love. I treasure all three of you and I sincerely thank you for enriching my life and supporting my personal and professional growth.

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ABSTRACT

STRESS, COPING, HEALTH PRACTICES, AND HEALTH STATUS
IN ENLISTED AND OFFICER AIR FORCE WOMEN WITH

by

DEPENDENT CHILDREN

JUDITH CAROLE MAYNE, R.N., B.S.N.

SUPERVISING PROFESSOR: DR. ALICE R. REDLAND The purpose of this descriptive study was to examine demographic and psychosocial variables associated with the health status and health practices of a randomly selected group of 400 active duty Air Force (ADAF) women with dependent children stationed at 10 medium-sized bases within the continental United States. (The tools used and the theoretical framework were based on the work of Dr. Alice R. Redland in her study of employed civilian mothers. Research questions included: 1. What are the coping patterns, stress levels, health status, and health practices of ADAF women with dependent children? 2. Are there differences between officer and enlisted mothers on these variables? 3. What are the contextual factors that impact military mothers and how are these factors related to the variables of interest? A total of

239 women responded to the self-report
questionnaire resulting in a 60% return rate. Data
analysis included a descriptive summary, Pearson
Correlations, and MANOVAS. Findings indicate that
use of confrontive coping, a problem-oriented
approach, is significantly related to more positive
health practices. This type of coping is used
significantly more by officers than by enlisted
mothers and by women with older children compared
to those with preschoolers. The findings suggest
that some groups of military mothers are more at
risk and could benefit from health promotion
programs that teach problem-solving skills
(confrontive coping), stress and time management,
and ways to improve health practices.

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CHAPTER ONE

INTRODUCTION TO STUDY

Significant changes have occurred in the primary features of military members and their families. In the past, most troops were single men, and those who were married typically had spouses who were full-time homemakers. Today more than 53% of all military members are married, about 60% have spouses who are employed or actively seeking jobs, and military families have more than 1.6 million dependent children (Torphy-Donzella, 1988).

Employment outside the home is becoming the norm for women in modern American society and this is creating vast changes in family dynamics as well as within work settings. The military community reflects similar changes. The military institution has also been adjusting to the changing status of women and the role changes occurring for both men and women.

The year 1973, the beginning of the All Volunteer Force, was a turning point for military women. Changes in the status of women as a result of the civil rights movement and the women's

movement altered public opinions about female roles, and many restrictions for military females began to be removed because of these legal and societal changes (Becraft & Zurmuhlen, 1987). Military policy prior to 1976 required pregnant women to request a waiver to remain on active duty, and typically expectant military mothers were not permitted to do so (Makuen, 1988). Considerable progress has been made in the past 16 years by military women in securing the right to remain on active duty during pregnancy and following childbirth, to attend military academies, to obtain dependent benefits comparable to their male counterparts, and to serve in some previously restricted, non-traditional positions (Beacraft & Zurmuhlen).

Even the popular press has written about the changing military family. In the June 9, 1988 issue of <u>USA TODAY</u>, Brown interviewed several military spokespersons and noted that an increased emphasis had been placed on family concerns because these factors directly impact the military mission. Twenty years ago, 75% of military members had no family responsibilities, whereas today 70% have

families. The majority of Air Force families are non-traditional including dual career military couples, military men with employed civilian spouses, military women with civilian spouses, and single parents (Brown, 1988).

Quality of life for military families has become an expectation, but without adequate support military members leave the service. A major economic expenditure results because of the high cost of retraining replacements and the loss of experienced individuals (Brown, 1988).

In the 1980 report by the U.S. Department of Labor, 64% of all women between the ages of 25-34 were working, including 54% of the women with children. This same report showed that in the period between the 1970 and the 1980 labor reports, the number of working wives with children under 6 years of age rose from 30% to 43%, and 63% of the employed married women with children less than 3 years of age worked full time. Hofferth and Phillips (1987) estimate that by 1990 only 25% of all women will stay at home, caring for their children in the traditional maternal role. The implications for society and for the child care and

health care delivery systems are many in terms of identification of problems, solutions, and services.

Since a growing number of women are combining full time military service with family responsibilities, factors influencing them are important. According to the Military Personnel Center (personal communication April 19, 1988), the total number of active duty Air Force women with dependent children residing with them is between 22-23,000; 4653 of these women are single mothers. That means that approximately 30% of the 75,418 Air Force women serving on active duty are mothers with dependent children.

The relationship between stress and multiple role demands has been studied. Women employed outside the home expect, and are expected by others, to perform their multiple roles of employee, wife, homemaker, and mother competently, often resulting in stress from role overload. Most of the studies of working women focus on health in relation to psychologic distress and psychophysiologic symptoms (Gove & Geerken, 1977; Billings & Moos, 1982; Gore & Mangione, 1983;

Cleary & Mechanic, 1982). Other variables such as role strain, social support, employment role commitment, attitude, and satisfaction, income, occupational status, home role attitude, marital status, and the number and ages of dependent children have been studied to determine their impact on the health of employed women.

The possible relationship between health status, health practices, coping patterns, and stress levels in working civilian mothers is just beginning to be explored (Redland, Budgen, & Sands, 1989). Research studies focusing on military women with dependent children using these variables have not been conducted.

Risk factors pertinent to military members, in general, relate to the nature and mission of the Air Force. The mission is to "Fly and Fight" or to support others in that task, and all jobs have a war readiness component. Since the military organization has more normative and legal latitude over service members than employers in the civilian sector have over their employees, the impact is greater on both the ADAF member and her/his family (Segal, 1989). Other occupations have similar

requirements, but few demand all the physical risks, geographic mobility, family separation, long working hours, shift work, and restraints on non-work behavior that the military requires (Segal). Members must give up certain personal freedoms, adhere to rules regarding proper relationships with members of different ranks and positions, and maintain their weight and physical fitness within certain guidelines if they wish to remain in the service. Failure to accept a relocation assignment, once it is given, generally results in a discharge from the Air Force. These elements make this career lifestyle very different from civilian equivalents.

The attitude of co-workers, particularly superiors, towards women in general and especially those with family responsibilities, is an important factor in the psychological well-being and career potential of women (Segal, 1989). Some military jobs require exposure to hazardous materials (chemical, fuels, radiation, explosives), heavy lifting, additional risks (i.e. flying), rotating shifts, week-end duties, and long hours. Risks can be minimized for pregnant women through a temporary

job waiver once pregnancy is diagnosed, but this restriction is based on objective medical reasons, and protection for nursing mothers is not clearly defined (Makuen, 1988).

The inherently demanding working conditions of many military members, combined with less flexibility for handling family emergencies (for example, calling in for a personal day to stay home with an ill child is not an option) may create job and family conflict. This is particularly true for women because of the still prevalant view that the mother is the primary caregiver.

Virtually nothing is known about the stress levels, coping patterns, health practices, and health status of military mothers. One Army researcher, however, has investigated the relationship between health, role attitudes, role strain, and social support in enlisted military mothers (Rupkalvis, 1988).

Purpose

In view of the strong Air Force commitment to quality of life issues for military members and their families, it is worthwhile to explore factors which impact the health of Air Force mothers.

Health care interventions must be based on sound, scientific findings obtained through research, and implemented in practice. Air Force policies and services must take into account factors which affect the well-being, job performance, and retention of this significant number of military members. Since income, educational level, occupational status, career commitment, and social support are potentially influencing factors, enlisted women and officers might utilize different coping mechanisms and health practices. The purpose of this descriptive study was to assess demographic and psychosocial variables associated with the health status and health practices of active duty Air Force women with dependent children in residence.

Theoretical Framework

Since 1966 Lazarus and his colleagues have been exploring stress, coping and related factors (Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986; Lazarus & Folkman, 1984; Folkman, S., 1982; Monat & Lazarus, 1977). Their theory of psychological stress, cognitive appraisal, and coping has been developed and expanded through

extensive research and provides a sound framework for this study.

Lazarus and Folkman (1984) describe a two stage cognitive appraisal process utilized by an individual in responding to changing events. They theorize that an individual confronted with a new situation will first engage in a primary appraisal process. The outcome of this process is a judgment about the encounter, a judgment that it is irrelevant, benign or positive, or stressful to her or him. Lazarus and Folkman further postulate that the situation appraised as stressful can be perceived as being one of three different types: harm/loss, threat, or challenge. An appraisal of a situation as harmful or involving loss occurs when the person has already experienced damage of some type. When some future harm or loss is anticipated because of the stressful encounter, it is appraised as threatening. A situation appraised as challenging is one in which the individual recognizes the possibility of mastery or gain from engaging in it.

The secondary appraisal process occurs when the judgment from the primary appraisal is that the

situation being experienced is stressful. The interplay of the primary appraisal (that a stressful situation is a harm/loss, threat, or challenge) and the secondary appraisal process regulate the individual's emotional response to the situation.

The outcome of the secondary appraisal process is a judgment by the individual about what might and can be done about the stressful situation. To arrive at this judgment, the individual engages in a cognitive process. The individual analyzes the stressful situation, the resources and coping options available for managing it, various alternatives, and their probable effectiveness and consequences. Coping is defined as "...constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person" (Lazarus & Folkman, 1984, p.141). When a situation is viewed by the individual as unlikely to be changed, more emotional forms of coping will be considered and used. However, when the situation is viewed as one that can be changed, more problem-oriented forms of coping emerge.

Lazarus and Folkman (1984) note that the two general but opposite forms of coping, emotion-focused and problem-focused coping, occur at the same time and interact throughout the stressful experience. They suggest that people who cope effectively usually use strategies comprised of some of each. The two forms of coping function to 1) regulate the emotional response to the stressful situation, and 2) manage or change the situation, so as to remove the "problem" producing the stressful appraisal.

During the process of secondary appraisal, health promotion activities may or may not be seen as one of the possible options or resources available to the person. If health promotion activities are perceived as being available and are determined to be viable, effective options, then the person is more likely to take on the activity in an effort to constructively deal with the problem that generates the perceived stress.

Conversely, if negative health practices, such as, drinking alcohol and taking other drugs are available and viewed as effective options, then the

person may use potentially destructive methods for managing the perceived stress.

Engaging in health promotion activities may also be related to patterns of coping. If individuals primarily use strategies that serve to manage the emotional response to the stressful situation and avoid taking action aimed at the problem then "...emotion-focused forms of coping can impair health by impeding adaptive health/illness-related behavior" (Lazarus & Folkman, 1984, p.217). These individuals would be less likely to engage in health promoting activities and their health might be compromised.

Multiple roles, when referring to mothers who work outside the home, denote socially defined behaviors that encompass at least two different sets of role obligations - those traditionally associated with being female (homemaker, wife, mother) and those associated with paid employment. Expectations for competent role performance come from within the woman herself, from her family, and from her employer and co-workers. The working mother is confronted with a situation that recurs over time, that of managing multiple role demands.

Consequently, stress in the working mother is an outcome of her primary appraisal of the interface among the multiple role demands associated with her work and home environments (Redland et al., 1989).

The secondary appraisal process outlined by
Lazarus and Folkman (1984) suggests that those
mothers appraising multiple role demands as
stressful will engage in coping strategies to
manage the stress. When the environment of the
stressful multiple role demands is appraised as
changeable, problem-focused, confrontive coping
results. Situations appraised as unchangeable will
be addressed with emotive or palliative coping
strategies (see Figure 1).

Research Questions

The purpose of this exploratory, descriptive study was to assess the demographic and psychosocial variables associated with perceived health status and health practices of active duty Air Force women with dependent children in residence. The research questions of interest were:

1. What are the stress levels, coping patterns, health practices, and health status of active duty

PRIMARY APPRAISAL SECONDARY APPRAISAL ENCOUNTER OUTCOMES

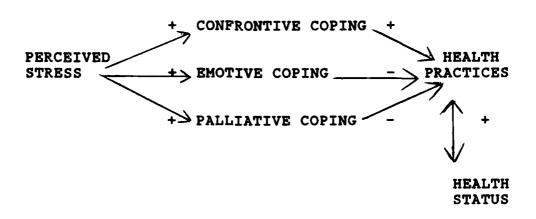


Figure 1. Theoretical framework of stress, coping, health practices, and health status. (Based on the work of Dr. Alice R. Redland, The University of Texas at Austin, School of Nursing.)

Air Force women, enlisted and officers, with dependent children living at home?

- 2. Are there differences between enlisted mothers and officer mothers on these variables?
- 3. What are the contextual factors that impact military mothers and how are these factors related to coping patterns, stress levels, health status, and health practices?

Definitions

1. Stress is a nonspecific response of the body to any type of increased demand placed upon it (Selye, 1956). Lazarus and Folkman (1984) state that psychologic stress develops out of an individual's appraisal that a mismatch exists between demands placed upon him or her and his or her ability to cope. This perspective of psychological stress emphasizes the lack of fit between the person and the person's environment. Stress will be measured using the 14-item Perceived Stress Scale (PSS) (Cohen, Kamarck, & Mermelstein, 1983), a global measure of stress. Stress experienced in the last month will be assessed and reported by the individual.

- 2. Coping is defined as the process of managing external and/or internal demands that burden or exceed the resources of the person (Lazarus & Folkman, 1984). Coping is a process and there is a relationship between the person and the environment (Folkman, 1982). Coping for the previous month will be determined by using the Jaloweic Coping Scale (JCS), a 40 item, 5 point Likert scale of coping behaviors (Jaloweic, Murphy, & Powers, 1984).
- 3. Health practices are the positive and negative behaviors engaged in by an individual which impact health or are believed to potentially impact health in a negative or positive way. Health practices will be measured using the Personal Lifestyle Questionnaire (PLQ), a 24 item Likert-type scale (Brown, Muhlenkamp, Fox, & Osborn, 1983). The extent of participation in health-promotion activities, relaxation, safety, exercise, nutrition, prevention, and substance use is assessed.
- 4. Perceived health status is based on the idea that self-knowledge is only valid from the perspective of the person himself and that

individuals may be assumed to know how healthy they are and how they feel (Engel, 1984). A self-report method is therefore appropriate. Perceived health status will be determined by the score received on the Perceived Health Status Index (PHS), a multidimensional appraisal of health that measures physical, psychological and social well-being. It consists of three scales: Current Health (CH), Affect Balance Scale (ABS), and Life Satisfaction Index (LSI).

5. Active duty Air Force (ADAF) mothers are defined as women with children who are currently serving full time in the United States Air Force (USAF). For the purpose of this study, these women are enlisted or officers, between the ages of 18 and 45 years, who have 1 or more children between the ages of 1 day to 18 years residing with them, and who are stationed within the continental United States, excluding Alaska and Hawaii (CONUS).

Assumptions

This study was based on the following assumptions:

- 1. The self-report questionnaire will reliably obtain the necessary information to answer the proposed research questions.
- 2. The self-report questionnaire will validly obtain necessary information to answer the proposed research questions.
- 3. Subjects will honestly answer the survey questions.
- 4. Subjects will complete the questionnaire correctly.

Limitations

Possible limitations, which may affect this study include:

- 1. A positive or negative bias in subject responses due to the Hawthorne effect, the effect of being included in a research study.
- 2. The effect of memory on subject responses; subjects are asked to describe some of their reactions to events over the last one month period.
- 3. The distribution and return of questionnaires via formal work channels and concern over confidentiality might bias participants to respond in a more pro-Air Force manner.

4. The length of time (35-45 minutes) required to complete the questionnaire could result in subject fatique or boredom and might negatively influence response quality and accuracy.

CHAPTER TWO

REVIEW OF LITERATURE

A number of disciplines have taken an interest in the health of women and numerous investigations have compared the physical and psychological health of working women with both housewives and men. The results vary, but certain trends emerge.

Stress Effects

understanding the multiple roles of women (wife, mother, homemaker, and worker). Selye (1956) found that prolonged, cumulative stress had an adverse effect on health. Haynes and Feinleib (1980) reported that the working women in their study experienced more daily stress than either housewives or men, and the majority (87%) of married women, both professional and clerical, in a study conducted by King and Winett (1986) reported "above average" or "extreme" stress levels at work and at home.

Haynes and Feinleib (1980) prospectively studied the 350 housewives, 387 working women, and 580 men who were free of coronary heart disease (CHD) in the 1965 and 1967 Framingham Heart Study,

eight years later, focusing on the development of CHD. This study revealed that although the CHD incidence was similar in working women and housewives, certain groups, particularly, female clerical workers who were married and had children, were twice as likely a non-clerical workers or housewives to show evidence of CHD.

Using a military spouse sample, Nukolls, Cassel, and Kaplan (1972) studied the relationship between psychosocial assets, as measured by a questionnaire called TAPPS designed to assess adaptive potential during pregnancy; social stresses, as measured by a cumulative life change score; and the prognosis of pregnancy, determined by criteria used to assess complications using the medical record. Considered alone, neither the TAPPS scores nor the life change scores were related to pregnancy complications for the 170 enlisted wives. Considered conjointly, women with high life change scores (high stress) both before and during pregnancy and high TAPPS scores (favorable psychosocial assets) had only one third as many complications as women with low TAPPS scores and high life change scores.

Employment Effects

Verbrugge (1983) analyzed data gathered in the 1978 Health in Detroit Study via interview and daily health recordings obtained from 243 white men and 346 white women. She found that the best physical health profiles were obtained on employed married parents. Employment had the strongest effect, and parenthood the weakest, but she concluded that multiple roles were not harmful to women's health.

Employment can be a source of self-esteem and social support, buffering the woman against stress, or it can be a source of stress itself. O'Neill and Zeichner (1985), in a descriptive study of 230 high-level female workers, found the level of job distress to be the best predictor of depression, anxiety, and physical symptoms of illness. They found that self-perceived stressors, such as work overload, conflict, role ambiguity, and responsibility were significantly related to both physical and psychological strain.

Using data from 12,797 women aged 45-64 randomly collected for the national, ongoing Health Interview Survey conducted by the National Center

for Health Statistics in 1974, Nathanson (1980)
found employment to be a stress buffer for women,
especially among those women with least access to
opportunities for social support and self-esteem,
and among women with lower educational levels.
Employment was positively associated with perceived
health, as measured by using a self health rating
scale. Women were asked to rate their health in
comparison to other people of the same age using a
scale of "excellent", "good", "fair", or "poor".

In a mailed survey study of 235 married, female nurses Hirsch and Rapkin (1986) used a cluster analytic procedure to identify various patterns of psychological symptomatology, social networks, and marital, life, and job satisfaction. High job satisfaction was positively correlated with low psychological symptomatology and overall life satisfaction. Hibbard and Pope (1985) found that jobs offering strong social support and integration had a positive health impact on the 1140 women between the ages of 18 and 64 randomly surveyed from a health maintenance organization. It should be noted that the data they used came from a survey conducted in 1970-71, and radical

social changes have occurred since that time, particularly in employment patterns and opportunities for women.

and depression generally find that employment has a positive effect on the psychological well being of working women compared to housewives (Cleary & Mechanic, 1983; Gore & Mangione, 1983; Wheeler, Lee, & Loe, 1983). However, being married, employed, and having children in the househol? is more stressful for women, counteracting this psychological advantage of employment (Cleary & Mechanic, 1983; Gove & Geerken, 1977).

Cleary and Mechanic (1983) interviewed 1,026
men and women 18 years of age and older and found
that women generally reported more psychological
distress than men. Employed married women
experienced less stress than full time housewives,
but the working mothers experienced more stress.
Gore and Mangione (1983) used multiple regression
to analyze data collected as part of a longitudinal
study of life situations and stress in a Boston
study between 1977-1980. Using data collected via
interviews in 1978 from 464 males and 647 females

18 years of age and older, they found no sex differences in depression between men and working mothers, however, having children increased the number of psychophysiologic complaints for both working wives and homemakers.

Wheeler, Lee, and Loe (1983) utilized data obtained from the 1971-1975 National Health and Nutrition Examination Survey to compare general well-being scores and utilization of professional services between 6913 employed and non-employed women between the ages of 25-74 years. They found that employed women generally had a higher sense of well-being and utilized fewer professional services to cope with personal and mental health problems than the non-working women. These findings were more pronounced among non-married and less-educated women.

Gove and Geerken (1977) randomly contacted 244 employed males, 196 employed females, and 339 unemployed females between the ages of 18 and 69 years at their homes in Chicago. Households were selected to maximize variation between socioeconomic factors and household overcrowding on behavior. Participants were questioned about their

perception of demands placed on them by others, desire to be alone, loneliness, and symptoms of mental health problems. The data from this study indicate that married men who work are in the best mental health, married women who are unemployed are in the worst mental health, employed housewives fall in between, and that having children living at home negatively impacts mental health, particularly for mothers.

In a cross-sectional, structured questionnaire study of 633 healthy, employed women between the ages of 21-44 years, O'Rourke (1986) found that psychological well-being was positively correlated to the number of children a woman has had, especially 2 or more, but was not significantly related to the actual number of children residing with the woman. In a correlational study by Uphold and Susman (1985), 185 healthy, middle-aged women were surveyed. Their findings indicate that multiple roles may be beneficial to midlife women with declining childrearing responsibilities, but the work role itself was not significantly related to fewer climacteric symptoms.

Woods (1985 a.) investigated role performance on the mental health of 140 young married women using an inhome interview technique. She found that women who had traditional sex role norms, little task-sharing support from the spouse, and minimal support from a confidant were at higher risk for poor mental health than other women. For women who were wives, mothers, and employees, nontraditional sex role norms had the most important protective effect on mental health (Woods, 1985 a.).

Military Mothers

In a rare descriptive study exclusively addressing health and stress among military mothers, Rupkalvis (1988) investigated the relationship between health and role attitudes, role strain, and social support. She studied 40 enlisted Army mothers, 18 partnered and 22 single, ranging in age from 20 to 37 years. The women had been in the Army from 1 to 12 years, with a mean of 4.58 years, and were assigned to a signal brigade and a garrison unit on a southwestern Army post. Tools used included the Home and Employment Role scale (HER), to measure role attitude and role

strain, a social support scale, and the Symptoms of Stress Self-Assessment Inventory (SOS), to measure self report of strain related symptomatology.

Rupkalvis (1988) used Pearson product moment correlation coefficients to analyze her data and stepwise multiple regression analysis to determine the possible effect of role attitudes, role strain, and social support on health. The significance level of p<.05 was used. For the entire sample, significant correlations were found between symptoms of stress and home role attitude (r=-.29), and between symptoms of stress and role strain (r=.53). Those Army mothers with high levels of stress symptoms had a more negative attitude toward home roles and higher levels of role strain.

For partnered mothers, Rupkalvis (1988) found that all variables correlated significantly with symptoms of stress. A strong positive relationship was demonstrated between strain and stress (r=.73); a strong inverse relationship between home attitude and stress (r=-.63); and moderate inverse relationships between symptoms of stress and employment attitude (r=-.52) and social support (r=-.49). For nonpartnered mothers symptoms of

stress did not significantly correlate with home role attitude, employment role attitude, role strain, or social support. Stepwise multiple regression showed role interaction strain to be positively correlated with stress symptoms (r=.53), accounting for 26% of the variance.

In this study, Rupkalvis (1988) found role strain to be the one significant predictor of health, though she believed social support was not adequately explored. The tool she used did not specifically address social support obtained via the work environment or support obtained through a satisfactory child care source, which might be important support systems for some women. She also conjectured that social support may indirectly, rather than directly, relate to stress.

Health and Health Practices

The importance of health to the individual should not be underestimated. Palmore and Luikart (1972) confirmed the old adage that health is the most important influencing factor on life satisfaction for both middle age men and women. Multiple regression was performed on data obtained from the Duke Adaptation Study, an

interdisciplinary longitudinal study of 502 adults using social, psychological and physical measures of adaptation. They also found little or no relationship between several variables believed to be related to life satisfaction, including marital status, intelligence, age, sex, total number of social contacts, and career anchorage.

Americans have shown an increased interest in health and health promotion activities over the last 20 years. The literature reflects an increased interest among researchers in health practices. Breslow and Enstrom (1980), in a prospective study, explored the relationship between personal health practices and mortality in 6,928 adults over a 9 1/2 year period and found that women who followed 7 health practices (never smoking cigarettes, regular physical activity, moderate or no use of alcohol, 7-8 hours of sleep per night regularly, maintaining proper weight, eating breakfast, and not eating between meals) had a 43% lower death rate than women who followed 0 to 3 health practices.

In an exploratory, descriptive study of 96 married women ages 20-40 years, Woods (1985 b.)

used a health diary technique to investigate universal and illness-related, self-care practices. She found a pattern of treatment specifically related to the manifested symptoms, most often used without consulting a health care professional.

In a study of 1155 women between the ages of 18 and 64 years, Hibbard and Pope (1987) linked data obtained from household surveys with data obtained from medical records spanning seven years. They found that women with roles that generally include responsibilities for caring for and protecting family health, for example, those with young, dependent children, had a greater interest in health, and that young women were more likely to have more frequent preventive health visits. Those with poorer health and lower educational status had more health concerns.

Nathanson (1980) (study described previously) found that working mothers showed lower levels of illness behavior overall and were generally more likely to utilize health care services when needed. Findings from a prospective study by Woods (1980) indicated that role proliferation alone did not appear to have a negative impact on health for the

96 young, married women who kept a three week family health diary. The number of children and role reinforcement had a modest negative effect on illness episodes experienced by working mothers.

Using self-completed questionnaires
distributed to participants attending a health
conference on stress, McEntee amd Rankin (1983)
found that all of the 103 women in their study,
self-identified as employed in the professional or
business sector, were experiencing mind-body
distress disorders regardless of marital status.
In addition, single mothers were less likely to
take care of themselves by going to bed to rest
because they did not have an available support
person to assume childcare responsibilities.

Coping

Using the term "coping" as conceptualized by Lazarus and Folkman (1984), the individual is constantly altering his cognitive and behavioral efforts to manage the demands he appraises as taxing or exceeding his resources. This processoriented, rather than trait-oriented approach is concerned with efforts, not outcomes, and managing, rather than mastering the environment. This

reflects a change from the concept of coping presented in 1977 by Monat and Lazarus when they stated that a growing number of professionals used the term coping to refer to "efforts to master conditions of harm, threat, or challenge when a routine or automatic response is not readily available" (p.8).

The ways in which women cope and the most effective coping patterns for various situations have been investigated and there is some consistency in the results. Using an exploratory interview technique, Pearlin and Schooler (1978) obtained data from 2300 urban men and women 18-65 years of age. They found that the most effective coping mechanisms are more commonly utilized by men, better educated individuals, and those with higher incomes or socioeconomic status. define the coping responses as the things people do, their concrete efforts to manage life-strains arising from their various roles. Pearlin and Schooler also emphasize that problems within social and economic organizations may overpower the ability of an individual to cope with the system because the problems which impact are rooted in the organization and are beyond the individual's efforts to change them. Therefore, coping failure may not reflect individual shortcomings, but rather a breakdown within the social system.

Holahan and Moos (1986) used a longitudinal analysis of stress-resistance factors related to personality, coping, and family support assessed at an initial testing to predict physical and psychological adjustment one year later. In their survey of 245 men and 248 women, they found that the variables of feelings of self-confidence, an easy-going disposition, a disinclination to use avoidance coping and family support worked together to better protect these individual from the negative psychological results of stress. For women low stress resistance was predictive of psychosomatic complaints experienced one year later.

Killien and Brown (1987) studied the relationship between daily stressors ("hassels") and coping strategies in 92 women ages 18-45 years. A 90-day health diary and telephone interviews were used to collect the data. Four common typologies of multiple roles (married working mothers, single

working mothers, married workers without children, and homemakers) were represented in the sample. The major response to hassels employed by women was "doing nothing" followed by a problem solving approach. Both single mothers and working mothers primarily reported hassels related to "child's behavior" and their most commonly used solution was to "fix the problem"; whereas homemakers reported "emotional symptoms" and "talked out the problem"; and married workers reported "physical illness/injury" and "talked or complained to spouse".

O'Neill and Zeichner (1985) studied 230
working women, 73% of whom were managers or
professionals with advanced degrees. Those women
who used avoidance strategies to deal with work
stressors reported higher levels of physical and
psychological symptoms, and most of the women said
they used problem-focused coping, which they
believed was the most effective approach.

Redland et al (1989) found that confrontive coping, a problem-oriented coping method, was significantly related to positive health practices in an exploratory descriptive study of 133 working

women 19-45 years of age. Through multiple regression analyses, perceived stress did not explain health practices, and when perceived current health status was controlled, confrontive coping strategies became the best predictor of desirable health practices.

Two studies have identified the need or benefit of time management programs focused on specific areas of stress identified by women from dual-earner or dual-career families (King, Winett, & Lovett, 1986; & King & Winett, 1986). survey of 57 professional women and 55 nonprofessional working women, King and Winett (1986) identified lack of personal/quality time as a chronic issue for working mothers. The nonprofessional working women indicated a strong preference for time mangaement skills that could be applied at home, since these women may have a stronger perception that household tasks fall within their role as wife. King, Winett, and Lovett (1986) used a quasi-experimental approach to evaluate the effects of time-management training and social support on modification of stressproducing behaviors in 56 working women ages 23-56

years. Women receiving time-management instruction reported significant increases in targeted stress-reducing activities compared to those who received group support or no intervention. The women in this study reported a greater increase in the amount of time spent in self-determined, high-priority activities following time-management training. These changes were maintained at a follow-up 3 months later.

Conclusions of Literature Review

Stress has been linked to both physiological and psychological symptomatology. Working mothers generally experience higher levels of stress as a result of the "balancing act" of juggling multiple roles. Still, many of these women continue to maintain high levels of physical and emotional health despite the demands of their lifestyles. Stress is also influenced by the personal attributes and social systems of the woman. One factor, coping, believed to be a stress mediator, needs to be further investigated in relationship to health status. The relationships between perceived health status, health behaviors, stress, coping, and specific demographic factors in active duty Air

Force mothers with dependent children needs to be explored.

CHAPTER THREE

METHODOLOGY

This investigation was an exploratory, descriptive study, that utilized the conceptual framework and tools of a two year study of employed, civilian mothers funded by the National Center for Nursing, National Institute of Health.

That study, "Health Status, Health Practices and Coping Methods of Working Mothers", was conducted by Dr. Alice Redland at the University of Texas at Austin. The study reported here focused on the stress levels, patterns of coping, health practices, and perceived health status of Air Force mothers, enlisted and officers, and was designed to answer the following questions:

- 1. What are the stress levels, coping patterns, health practices, and health status, of active duty Air Force women, enlisted and officers, with dependent children living at home?
- 2. Are there differences between enlisted mothers and officer mothers on these variables?
- 3. What are the contextual factors that impact military mothers and how are these factors

related to coping patterns, stress levels, health status, and health practices?

Population

The target population is composed of approximately 22-23,000 active duty Air Force (ADAF) women with children. Since there are potential factors unique to overseas assignments, only women from medium-sized, stateside bases were selected. Participants were required to be between 18 and 45 years of age and to have one or more dependent children, 18 years of age or less, in residence at least nine months of the year. The children could be their natural, adopted, foster, or stepchildren.

Sampling Method

A probability sampling method, cluster sampling, was used. Air Force approval was received through appropriate channels and a survey control number (USAF SCN 88-93) was issued. From a list published in <u>Air Force Magazine</u> ("Guide to Major Air Force Installations", 1988) of all major continental United States (CONUS) Air Force bases, ten medium-sized bases, those with 4000-7500 active duty members assigned, were randomly selected.

Written approval and support of the Base Commanders of those installations was requested and received (Appendix A). After approval was obtained, both officers and enlisted women who met the criteria were randomly selected from each of the ten bases by accessing the ATLAS computer system at the Air Force Military Personnel Center. A total of 400 women were selected, 256 enlisted and 144 officers, from all the possible mothers at each of the 10 bases. (Originally, the goal was to select 200 officers and 200 enlisted mothers, but it was not possible to obtain 20 female officers with children from most of the ten bases. Therefore, all available officers, up to 20, were invited to participate and the rest of the 40 participants from each base were randomly selected from all the possible enlisted mothers at each base.) It was not possible to access the women who were married to other active duty military members via the computer system if they opted to have their dependent children listed under their spouses' records instead of their own.

Sample size was determined by the number of variables planned for statistical analysis,

estimating the population means and standard deviations based on a similar study and other studies using the same instruments (Polit & Hungler, 1987). Using these estimates and anticipating a 50% return rate, a minimum of 98 enlisted women and 98 officers should be adequate.

Preaddressed surveys and follow-up letters were sent to participants at their work places through interoffice mail by the point of contact (POC), the person designated by the Base Commander to assist with survey distribution and retrieval. A total of 243 surveys were returned for an overall return rate of 61%. Four surveys were not used because they did not meet the criteria. One woman did not have her children residing with her nine months of the year and one woman was pregnant with her first child, had stepchildren, but currently had no children residing with her. Two surveys were returned but not completed. The remaining 239 surveys resulted in a 60% return rate for the group. Out of 144 surveys sent to officers, 93 were returned and usable for a 65% participation rate. For the enlisted subgroup, 146 out of 256 were usable resulting in a 57% participation rate.

Procedures for Data Collection and Protection of Rights of Human Subjects

The rights of human subjects received careful consideration during the planning phase of this study. Various resources including The University of Texas at Austin's guidelines, "Protection of Rights of Human Subjects", and Polit and Hungler (1987) were reviewed and followed in order to design a study that would protect participants. A detailed human subjects packet for this study was submitted and approved by the Human Subjects Review Board at The University of Texas at Austin, School of Nursing and by the United States Air Force, as required.

Each participant received a cover letter with the questionnaire (Appendices B and C) explaining the nature and purpose of the study. The letter informed her that she was one of 400 randomly seclected USAF women with children invited to voluntarily participate. The women were told that the research study was for a thesis and that the overall results would probably be published and would be shared with the Air Force, health care professionals, and other interested parties.

Participants were told that a synopsis of the completed study was available to them at their request. Except as disclosed by participants themselves, the results of individual responses were kept strictly confidential. Written consent was not obtained in order to ensure anonymity, but informed consent was signified by voluntary return of the surveys by the participants.

Only the POC at each base and the investigator knew the names of women selected to participate. In order to protect the anonymity of participants, no list of those selected to participate was made and women were asked in the cover letter not to write their names on the completed questionnaire. The POC was sent a letter explaining in detail his/her role in the study (Appendix D). The importance of strict confidentiality of all information received was stressed, as well as the necessity for adherence to the step-by-step distribution and retrieval process. The POC was responsible for distributing the preaddressed survey packets with a letter from the investigator to each woman at her duty section via interoffice mail. The participants were asked to complete the

survey, seal the completed questionnaire in the envelope, and return it by interoffice mail to the POC, using the enclosed mailing label, within 2 weeks of receipt. The POC received the returned surveys and placed them in a secure, locked area to ensure safekeeping and confidentiality. He/she was specifically instructed not to open the sealed envelopes or to examine the completed questionnaires. Approximately three weeks after sending the initial survey packet, the POC sent all participants a preaddressed, reminder/thank you letter from the investigator (Appendix E) and another survey, if requested by the participant. No other verbal or written efforts were used to remind or encourage individual participants to return the surveys since participation was voluntary and coercive tactics were unacceptable. After allowing two to three more weeks for additional returns, the POCs mailed all returned surveys to the investigator.

A self-report method was used to obtain the data and completion of the entire packet was estimated to take approximately 35-45 minutes.

Many of the women who returned completed

questionnaires mentioned that the survey had prompted them to focus on how they were managing their multiple roles and, consequently, they saw it as a beneficial experience. Others expressed appreciation for the opportunity to voice their concerns and were pleased that someone cared about them and their unique needs. Feedback from participants confirmed that benefits outweighed the risks of participating.

Description of the Sample

All of the 239 women in this study are full time, ADAF enlisted mothers (146) or officer mothers (93) stationed in CONUS at medium-sized Air Force installations. Tables 1 and 2 provide detailed demographic information about the sample and the subgroups. Table 3 shows a breakdown of the overall group by major career fields.

The ages of the subjects ranged from 20 to 44 years. The overall mean age for the group was 31.2 and the mode was 28 years, with officers (M=33.7) being approximately 4 years older than enlisted mothers (M=29.6). The average rank for enlisted women was Staff Sergeant (66 participants) with a

Table 1

Demographic Profile of Participants (Mean used unless otherwise specified)

	-	Enlisted	Officer
Age (yrs)	31.2	29.6	33.7
Rank (mode) *	SSgt	SSgt (66)	
ADAF time (yrs)	8.2	8.7	7.6
Time at current duty station (yrs)	2.7	3.5	1.7
Black	20.5	64.4 26.0 3.4 4.9	11.8
Marital status (%): Married Not married	67.4	64. 4 34.9	72.0 28.0
# Yrs. Married	6.7	5.7	8.0
Military spouse (%)	48.5	54.3	40.3
Joint spouse(%)	82.5	80.8	85.7
# Children in residence	1.6	1.6	1.7

^{*} SSgt=Staff Sergeant; Capt=Captain

^{**} Other= American Indian/Alaska Native, Asian/Pacific Islander, Other/Unknown

range from Airman to Senior Master Sergeant. For officers, more than half were Captains (50) and the range was from Second Lieutenant to Lieutenant Colonel (Table 1). According to Air Force Magazine ("The United States Air Force in Facts and Figures - An Air Force Almanac", 1988), the average officer is 34 years old and is a Captain, and the average enlisted person is 27 years of age and holds the rank of Sergeant/Senior Airmen. The higher average rank among the enlisted women in this sample corresponds to their older age and is appropriate for their length of time in the service.

Enlisted women had been at their current duty station an average of 3.5 years, while officer mothers had been on station only 1.7 years (Table 1). The mean length of time on active duty for the group was 8.2 years, with officers averaging 7.6 years and enlisted mothers 8.7 years. In the February 13, 1989 issue of <u>Air Force Times</u>, Burlage provides a table listing regular military compensations for 1989 by rank. This chart shows the average annual military "salary" for each pay grade and combines basic pay, subsistence allowance, allowances for quarters, and the

variable housing allowance. The chart also includes the tax advantage for untaxed allowances. For a Captain with more than 6 but less than 8 years, the salary would be \$39,920. For a Staff Sergeant over 8 years, the salary would be \$22,970 per year.

The ethnic group breakdown in this sample was similar to one reported in a fact sheet on minority women in the military compiled with statistics from the Department of Defense by the Women's Equity Action League (WEAL) by Beacraft (1987). For this overall group, 70.7% were Caucasian, 20.5% were Black, 2.9% were Hispanic, and 4.7% were other (American Indian/Alaska Native, Asian/Pacific Islander, and Other/Unknown). For enlisted mothers the ethnic breakdown was: 64.4% Caucasian (70.7% per WEAL), 26% Black (22.9% per WEAL), 3.4% Hispanic (3.1% per WEAL), and 4.9% other (3.3% per WEAL). For officers the breakdown was: 80.6% Caucasian (83.2% per WEAL), 11.8% Black (10.9% per WEAL), 2.2% Hispanic (2.4% per WEAL), and 4.4% other (3.5% per WEAL) (Table 1).

There were more married women (67.4%) than all combined categories of non-married women -

divorced, widowed, separated, never married (32.2%). Sixty-four percent of the enlisted women were currently married and seventy-two percent of the officers were married. The average officer had been married more than 2 years longer than the average enlisted women. A smaller percentage of the officers were married to other military members, 40% compared to 54% of the married enlisted mothers. Over 80% of all women married to other active duty members were currently stationed with their husbands, a "joint spouse assignment". Officer joint spouse assignments in this sample exceeded enlisted ones by about 5% (Table 1).

The enlisted mothers had a mean of 1.6 children and a median and mode of 1 child residing with them at least 9 months of the year, while the officers had a mean of 1.7 children in residence with them with a median of 2, and a mode of 1 (Table 1). For enlisted women the range was from 1 to 4 children and for officers it was from 1 to 5 children. The children ranged in ages from less than 1 year to 22 years of age.

Since a college degree is a prerequisite for commissioned officers, the educational levels of

these two groups would be expected to differ vastly, and they do (Table 2). However, the educational levels for these enlisted mothers were higher than the statistics reported for enlisted personnel Air Force wide in Air Force Magazine ("The United States Air Force in Facts and Figures - An Air Force Almanac," 1988). While 14.19% of the enlisted force have an Associate of Arts degree or two to three years of college, 27.4% of these women had achieved that educational level and another 5.5% had a Baccalaureate degree compared to 2.75% of all other enlisted personnel.

The educational levels for female officers in this study were comparable to those for line officers listed in <u>Air Force Magazine</u> ("The United States Air Force Facts and Figures," 1988). Fifty-eight percent had a Baccalaureate degree compared to fifty-seven percent Air Force wide and over forty-one percent had a Master's degree, Doctoral, or professional degree compared to more than forty-two percent Air Force wide (Table 2).

The women in this study worked in a variety of military career fields which were represented

Table 2

Comparison of Educational Levels of Sample with Air

Force Personnel

Educational Level by %	Enli Sample		Of Sampl	ficer e USAF
High School/GED	41.10	47.94		
<2 years college	24.00	34.77		
Associate Arts Degree or 2-3 years college	27.40	14.19		-
Bacalaureate Degree	5.50	2.75	58.00	57.20
Master's Degree or >	1.40	0.27	41.30	42.72

Table 3

Career Fields of Participants Based on Air Force

Speciality Codes (AFSCs)

AFSCs	Percentage	Total # (N=237)
Health Services	27.85	66
Administration/Personnel	24.04	57
Logistics	16.03	38
Communications/Maintenance	e 14.35	34
Development Engineering	7.17	17
Electronics/Missiles	3.38	8
Security	2.11	5
Civil Engineering	1.69	4
Aircrew	1.69	. 4
Miscellaneous (Legal, Chapel, Band)	1.69	4

disproportionately (Table 3). Based on their Air Force Specialty Codes (AFSC's), 10 broad categories of career groups were identified using the first 2 digits of the AFSC. More than half of the women (52.90%) were in either health-related or administration/personnel career fields.

Instruments

Each subject was asked to complete the following:

- Perceived Stress Scale (Cohen, Kamarck, &
 Mermelstein, 1983) to measure stress experienced in the last month,
- Jaloweic Coping Scale (Jaloweic, Murphy, &
 Powers, 1984) to measure confrontive, emotive, and
 palliative coping methods,
- 3. Personal Lifestyle Questionnaire (Brown, Muhlenkamp, Fox & Osborn, 1983) to elicit health practices used,
- 4. Perceived Health Status Index (Engel, 1984) to determine the woman's personal health assessment,
- 5. Personal Information Sheet a demographic inventory sheet developed by the investigator to obtain basic descriptive information about the subjects.

The Perceived Stress Scale (PSS) is a global measure of stress, using a 14 item Likert-type scale (Cohen et al., 1983). Coefficient alpha reliability for the PSS was .84, to .86 in 3 samples (N= 64, 114, and 332.) For a state measure like stress, test-retest correlations should be much higher for short retest intervals than for longer ones. At two days the retest was .85 for one group, and .55 for another group retested at six weeks. The PSS and Life Events scores were significant at the .01 level on 3 of 4 correlations. The PSS was a significant predictor of both depressive and physical symptomatology (p <.001), and a significantly better predictor of health outcomes (p <.05) than 2 other life event stress scales. The PSS was a better predictor than the Life Events scores for utilization of health services. Increase in perceived stress significantly correlated with another scale measuring social anxiety (p <.001).

The Jaloweic Coping Scale (JCS) is a 40 item Likert-type scale of coping behaviors originally developed to examine coping methods used by hypertensive and emergency room patients, but has

been used on non-patient populations as well. It has been used by approximately 500 investigators within nursing and outside of nursing, in the United States and abroad (A. Jaloweic, personal communication, April 7, 1988). The scale was designed to measure two theoretical dimensions: problem-oriented coping (15 items) and affectiveoriented coping (25 items). Cronbach's alphas were .86 in a combined sample of hypertensive, emergency room patients, and non-patients (N=141) and .85 for dialysis patients (N=150) (Jaloweic et al., 1984). Correlations between total coping and problemoriented coping were .77 and .83; and between total coping and affective affective-oriented coping were .82 and .86. Evaluation of stability at a two-week retest interval (N=28) yielded significant rhos of .79 for total coping scores, .85 for problem, and .86 for affective coping Similar test-retest results were obtained at a one month interval. Coefficients were significant at the .001 level. Factor analysis was done and results supported the affective- and problemoriented coping domains.

Subsequent LISREL confirmatory factor analysis of the refined trichotomous model of the Jaloweic Coping Scale (Jaloweic, 1988), based on a combined data base from 22 investigations using 1400 subjects, resulted in a coefficient of determination of .95 and three empirical dimensions. For factor I, confrontive coping, the alpha was .85; for factor II, emotive coping, the alpha was .70; and for factor III, palliative coping, the alpha was .75 (Jaloweic, 1988).

The Personal Lifestyle Questionnaire (PLQ) (Brown, Muhlenkamp, Fox, & Osborn, 1983; Muhlenkamp & Brown, 1983) measure the extent to which individuals participate in health-promotion activities using a 24 item Likert-type scale. The total scale alpha was .72 for one sample and .76 for another (combined N=380). The test-retest reliability over a three week interval resulted in a coefficient of .88, and of .78 after a four week interval. Concurrent validity was established with the Stevens' Point Lifestyle Assessment Questionnaire with correlations of .83 and .72 obtained on two samples. The PLQ had a highly significant (p<.005) negative correlation (-.25)

with the Health Hazard Appraisal, which measures modifiable risk factors, further supporting the validity. Factor analysis of the responses of 380 subjects confirmed the validity of the six subscales.

The Perceived Health Status Index (PHS) is a combination of three scales: Current Health (CH), a subscale from the Health Perceptions Questionnaire (HPQ), Affect Balance Scale (ABS), and Life Satisfaction Index (LSI). The scales measure three generally accepted components of health: physical, psychological, and social. Engel (1984) combined scores on these three scales to develop a general measure of health status. In a study of 249 women between the ages of 40 and 55 Engel found that all three of the scales correlated significantly (p=.001) and directly with the PHS. Factor analysis was used and three factors were extracted: present health status (Factor 1), morale (Factor 2), and vulnerability to future illness (Factor 3). Intercorrelations among the three identified factors, the three original scales, and the PHS were all significant beyond the level of p=.001. There was a strong relationship between the HPQ and Factor 1 (present health status); the ABS and LSI showed a strong relationship to Factor 2 (morale); and the LSI was most strongly related to Factor 3 (vulnerability to future illness).

The Current Health subscale of the Health
Perception Questionnaire (HPQ) contains 9 Likerttype scale items designed to measure current health
as perceived by the individual (Ware, 1976).
Analyses were based on the results of field tests
in five locations and involved 2000 adults from the
general population. Internal consistency
coefficients reached as high as .92 for the current
health scale (N=2000), and test-retest after 6
weeks reached .86 (N=186). Indepth factor analysis
indicate significant correlations with other
criteria such as mental health, depression, use of
outpatient services, current life events, and
previous treatment for acute symptomatology and
provide validity for this instrument.

The Affect Balance Scale (ABS) is a ten item, two dimensional scale assessing positive and negative affect (Bradburn, 1969). Adults subjects (N=4000) from 14 areas participated in studies using this scale and construct validity was

established. For the positive subset of the scale, alphas ranged from .55 to .73, and for the negatives subset of the scale, alphas were .61 to .73 (Bradburn). Correlations were .61 to .90 between this scale and other mental health measurement tools (Bild & Havinghurst, 1976).

The Life Satisfaction Index (LSI) was developed for use in a study of the quality of American life involving 2164 men and women in the continental United States (Campbell, 1976). It is a seven item Likert-type scale designed to measure satisfaction with life, the affective quality of life, and perceived stress. Stability estimates exceeded .70 on a sample of 285, and correlations of each item score of the seven total items were .70 or greater (Campbell, Converse, & Rodgers, 1976).

Scale reliabilities are presented in Table 4 for the total sample and for each subgroup. For the total sample, all major scales had alphas of .72 to .86. Two subscales, palliative coping (alpha .65) and the Affect Balance Scale (alpha .66) had group alphas less than .70.

Table 4

<u>Scale Reliabilities</u> (Internal Consistency)

	·		
	Total Sample (N=239)	(N=146)	(N=93)
Perceived Stres			.85
Coping Scale	.75	.75	.75
Confrontive Coping	. 85	.85	.83
Emotive Coping	.75	.75	.75
Palliative Coping	.65	.63	.70
Health Practice	es .72	.74	.68
Health Status	.86	.86	.86
Affect Balance	.66	.68	.63
Life Satisfacti	ion .76	.76	.77
Current Health	.90	.90	.90

The 3 page Personal Information Sheet

(Appendix C - Questionnaire) consisted of 25 fillin-the-blank demographic type questions. The
demographic sheet developed by Redland (1989) had
worked well in that study and was modified for this
similar study of employed mothers. Additional
questions specific to a military group and the
support services most likely available at a mediumsized Air Force installation were included.

Method of Analysis

Following the collection of research questionnaires, analysis was directed toward compiling frequency information about the coping patterns, stress levels, health status and health practices of ADAF women with children in residence. Using descriptive and inferential statistics, data were analyzed to answer the three research questions. In addition, the comments and suggestions made by participants were categorized and analyzed in order to further understand how, from their perspective, the military lifestyle, programs, and policies impact Air Force woman with children.

Frequencies were used to summarize the data related to research question one: "What are the stress levels, coping patterns, health practices, and health status of active duty Air Force women, enlisted and officers, with dependent children living at home?" Descriptive statistics were done and a descriptive summary accomplished. Pearson's correlations were used to assess the relationship between the major psychosocial variables.

In order to answer research question two:

"Are there differences between enlisted mothers and officer mothers on these variables?", inferential statistics in the form of MANOVAs were used. A MANOVA was used to test for differences between the officer and enlisted (rank) groups on the psychosocial variables of perceived stress, coping, health practices and perceived health status to reduce alpha (Type I) error. A second MANOVA was done to determine if enlisted and officer mothers were significantly different on selected demographic variables.

In order to answer research question three:

"What are the contextual factors that impact
military mothers and how are these factors related

to coping patterns, stress levels, health status, and health practices?", descriptive statistics were used to categorize other influencing factors annotated on the demographic inventory and specific comments from participants were used to emphasize important variables which influence the lives, well-being, and functioning of military mothers in positive or negative ways.

For all tests of significance, the .05 significance level was used. Since this was a descriptive study rather than an experimental or explanatory study, the less stringent level of significance was chosen.

Summary

The purpose of this study was to gather data on the stress levels, coping patterns, health practices, and perceived health status of ADAF women with dependent children stationed at medium-sized bases in the continental United States.

Another goal was to determine if differences exist between women with children who are enlisted and those who are officers on these variables. The final purpose was to assess the other contextual factors impacting these women and to determine the

relationship between these factors and the variables of interest. The population, sampling methods, procedures for data collection and protection of rights of human subjects, the instruments, and method of analysis to achieve this three-fold purpose were discussed.

CHAPTER FOUR

PRESENTATION AND INTERPRETATION OF FINDINGS

Following distribution and collection of the survey packet, each questionnaire was reviewed by the investigator. All quantitative data was input, cleaned, and analyzed as planned so that findings could be determined. The findings and interpretations are presented in this chapter and include results concerning the psychosocial variables of stress, coping, health practices, and perceived health status, data to answer the three research questions, and additional, unstructured comments from the subjects. Findings are presented according to the Research Questions posed at the beginning of the study.

Research Question One

Research Question 1: "What are the stress levels, coping patterns, health practices, and health status of active duty Air Force women, enlisted and officers, with children living at home?". The means (M) and standard deviations (sd) of major scales and subscales are presented in Table 5.

These will be compared in the following discussion to other known values.

Table 5

Mean Scores (M) and Standard Deviations (sd) for the Four Major Scales and Key Subscales

		Sample =239)		listed N=146)	Offic (N=9	
Instrument	M	sđ	М	sđ	M	sd
Perceived Stress	25.27	7.96	25.34	8.11	25.16	7.76
Coping Scale	101.60	13.14	100.55	13.64	103.26	12.20
Confrontive Coping		8.35	44.66	8.55	47.81	7.72
Emotive Coping	21.58	5.98	21.95	6.06	21.02	5.85
Palliative Coping	25.67	5.55	25.82	5.48	25.44	5.68
Health Practices	71.16	8.04	70.29	8.36	75.53	7.33
Health Status	85.09	15.68	83.80	15.86	87.12	15.24
Affect Balance	23.67	4.62	23.51	4.70	23.93	4.50
Life Satisfact.	28.17	7.51	28.03	7.57	28.40	7.44
Current Health	33.30	7.99	32.45	8.29	34.63	7.35

<u>Stress</u>

The mean score on the Perceived Stress Scale (PSS) for the total group was 25.27 (sd=7.96), with officers scoring a mean of 25.16 (sd=7.76) and enlisted women 25.34 (sd=8.11) (Table 5). The mean scores for the total military group and for each subgroup are all lower than the mean score of 27.5 (sd=7.4) reported by Redland, Budgen, and Sands (1989) on their group of 133 employed civilian mothers. In another study of 173 mothers of infants, maternal employment was one of the variables Walker (1989) used to test the mediating effects of perceived stress, and the stress-buffering effects of health practices on maternal identity. Walker reports a PSS mean (M=25.0, sd=8.0) similar to this study.

Working military mothers in this study and working and non-working civilian mothers in the two aforementioned studies have mean PSS scores higher than the national norms for females reported by Cohen and Williamson (1988). Though specific figures for employed mothers were not given, in a large probability sample of 2387 subjects where data were collected via telephone interview, Cohen

and Williamson reported mean scores for all females of 20.2 (SD=7.8); 21.1 for females and males ages 18-29 (SD=7.2); and 19.6 for males and females ages 30-44 (SD=7.3). It is interesting to note that only the disabled/too ill to work subgroup (M=26.8, SD=8.4) reported by Cohen and Williamson had a mean exceeding the means found in any of these three studies of working mothers.

Coping

Scores for the total group on the Jaloweic Coping Scale ranged from 59 to 142. In the study by Redland et al. (1989), from which this study was adapted, scores ranged from 72 to 141. The mean scores and standard deviations for the entire sample and for the two subgroups on each of the coping subscales are provided in Table 5. The mean scores reported by Redland et al. were CC (M=39.91, SD=8.86), EC (M=21.37, SD=6.20), and PC (M=28.75, SD=6.38).

Health Practices

The mean for the total sample on the Personal Lifestyle Questionnaire (PLQ) was 71.16 (SD=8.04) with a range of 48-90 (Table 5). In a similar study of working mothers, Redland et al. (1989)

reported a mean PLQ of 66.0 (SD=8.9) which is within one standard deviation. Hubbard,
Muhlenkamp, and Brown (1984) reported a mean PLQ of 80.15 (SD=8) on a sample of 97 adults at a senior center 55 to 90 year of age, and a mean of 68.09 (SD=9) on a group of 133 health fair participants.
Muhlenkamp, Brown, and Sands (1985) reported a mean of 73.7 (SD=9.23) on a group of 175 nursing clinic clients.

Perceived Health Status

Table 5 lists the mean health status scores for this group of military mothers (M=85.09, sd=15.68) which is similar to that reported by Redland et al. (1989) (M=89.95, sd=14.38, N=133) on their group of employed civilian mothers. Both officers and enlisted mothers on the average rate their current physical health as "good".

Correlational Data

Correlational data is presented in Table 6.

All correlations of perceived stress with measures of confrontive coping, health status, and health practice were inversely related and highly significant. Emotive coping and palliative coping

Table 6

Intercorrelations on Psychosocial and Health

Variables for Air Force Mothers

	PSS	СС	EC	PC	PHS
PLQ		.379*** (N=230)			
PHS		.336*** (N=224)			
PC		096 (N=228)	·		
EC	.581*** (N=230)	221*** (N=224)			
cc	384*** (N=230)				

* p<.05

** p<.01

*** p<.001

PSS = Perceived Stress

CC = Confrontive Coping

EC = Emotive Coping

PC = Palliative Coping

PLQ = Personal Lifestyle Questionnaire (Health

Practices)

PHS = Perceived Health Status

were positively related to perceived stress and highly significant. Since Lazarus and Folkman (1984) theorize that emotion-based coping assists individuals to adjust their response to a stressful situation, the direct relationship between emotive coping and perceived stress is not surprising.

The patterns of intercorrelations of the 3 coping subscales, confrontive, emotive, and palliative, are somewhat related to Jaloweic's 3 factor solution and Lazarus' and Folkman's theoretical framework. Confrontive coping shows some correlation and high significance with emotive coping, but little correlation and no significance with palliative coping, and can thus be viewed as an independent factor. Emotive and palliative coping have a moderate and highly significant correlation, reflecting more interdependency.

All three coping subscales form a similar pattern when correlated with Perceived Health Status and the three subscales, Current Health (CH), Affect Balace Scale (ABS), and Life Satisfaction Index (LSI). Confrontive coping is positively correlated with PHS (.34), and with all 3 of the subscales, (ABS=.31, LSI=.26, CH=.23) and

is highly significant with each scale (p=.000). Emotive coping is negatively and moderately corelated with the PHS (-.46), and all 3 subscales, (ABS=-.44, LSI=-.35, CH=-.31), and is highly significant (p=.000) with each. Palliative coping is again negatively correlated with the PHS (-.17, p=.005) and all 3 subscales ABS (-.24, p=.000), LSI (-.14, p=.016), and CH (-.08, p=.112). These findings fit with Lazarus' and Folkman's coping theory which suggests that confrontive coping, a direct, problem-oriented approach, allows one to manage or change a stressful situation in order to achieve positive results. Emotion-focused coping regulates emotional response and is not operating at the same time as confrontive coping. In all instances, the confrontive coping measure is positively correlated with the health measures, while the other two coping responses are negatively correlated with the same health measures. correlations between the ABS and the 3 types of coping are higher than those between the other two health status subscales (CH, LSI) and the 3 coping subscales. Only the overall health status correlation was slightly higher with the

confrontive and emotive subscales than the ABS.

These low to moderate, highly significant

correlations suggest that the psychological health

of a person is related to the coping patterns of

the individual.

As expected, the PLQ shows a moderate and positive correlation with the PHS and its subscales (ABS = .33, CH= .44, LSI=.46), and CC and is highly significant for all scales. A negative correlation and high significance are noted between the PLQ and PSS, EC, and PC (Table 6).

The patterns of intercorrelations between the health status subscales and the combined PHS scale are similar to and in some cases exceed those reported by Engel (1987), who combined these tools in her study of middle-aged women. All correlations between the total scale and the three subscales, (ABS=.69, LSI=.82, and CH=.79), are positive and strong and are highly significant (p=.000). The correlations are comparable to those found by Redland et al. (1989) in their study of employed civilian mothers. Correlations between health status and stress, coping, and health practices were discussed previously.

Research Question Two

Research Question 2: Are there differences between enlisted and officer mothers on these variables (perceived stress, coping, health practices, and health status)?

MANOVA was used to test for differences in officers and enlisted (rank). Values are given in Table 7. The Multivariate test was significant, and subsequent univariate F-tests showed that confrontive coping and health practices were significantly different between officers and enlisted women. The officers used confrontive coping significantly more often than the enlisted women and the health practices of the officers were more positive than those of the enlisted mothers. No differences were found on the variables of perceived stress, emotive coping, palliative coping, or health status.

The group means on all the PLQ subscales were similar except for the PLQ substance abuse subscale. The total sample had a range from 8-16. The enlisted women (M=14.32, sd=1.93) scored lower than the officers (M=15.12, sd=1.32) on this

Table 7

MANOVA Comparing Psychosocial Variables by Rank
(N=216)

Multivariate tests of significance

F=2.15424, DF=6,209, p<.05

Univariate F-tests with (1,214) D.F.

Variable	Sum of Sq.	Mean Sq.	F
Perceived			
Stress	13653.668	63.802	.35582
Confrontive			
Coping	14807.435	69.194	8.69334**
Emotive			
Coping	7622.955	35.621	1.43911
Palliative			
Coping	6653.193	31.090	.62577
Health			
Practices	13638.146	63.730	4.44329*
Health			
Status	52092.918	243.425	3.47527

^{*} p<.05

^{**} p<.01

subscale. The substance abuse subscale, like the rest of the 24-item PLQ, is answered on a 4 point Likert scale from "never" to "almost always". The substance abuse scale includes 4 questions regarding patterns of drinking 2 or more alcoholic beverages per day, smoking 1 or more packs of cigarettes daily, driving after drinking 2 or more drinks, and consuming alcoholic beverages when taking medications.

Research Question Three

Research Question 3: What are the contextual factors that impact military mothers and how are these factors related to coping patterns, stress levels, health status, and health practices?

The 239 women who responded to the questionnaire provided this researcher with indepth quantitative data about the positive and negative aspects of being an ADAF mother at a moderate-sized, stateside base. The extent to which many of these women went in describing how they manage their multiple roles was impressive. They provided rich, thoughtful, and well written answers to an open-ended question regarding additional services or assistance which might be provided by the Air

Force to help ADAF women with children cope more effectively. Most women added further comments and suggestions about the advantages and disadvantages of combining military demands with family responsibilities, giving graphic examples. They focused on the policies, programs, and attitudes that enhance or interfere with their ability to effectively manage their multiple roles from their unique perspective. Trends in responses from the demographic inventory related to available services will also be discussed in this section to show how these women perceive and use the available base services. Summaries of commonly expressed ideas will be given and direct quotes used when paraphrasing the words written by a subject would lessen the meaning. Appendix F contains a list of some of the direct quotes made by participants, who expressed a variety of views and concerns.

Results of Quantitative Analysis

A MANOVA comparing selected, interval level, demographic variables by rank confirmed a number of suspected differences in the two groups (Table 8).

On the average, officers were older and worked more

Table 8

MANOVA Comparing Selected Demographic Variables by

Rank (N=233)

Multivariate tests of significance

F=39.65861, DF=5,227, p<.001

Univariate F-tests with (1,231) D.F.

Variable	Sum of Sq.	Mean Sq.	F
де	4480.504	19.396	46.26351**
Workhours	11819.797	51.158	18.14888**
Time on Active Duty	4479.099	19.390	4.61324*
# Children in Residence	122.688	.531	1.45243
Time at Current Duty Station	681.029	2.948	43.70796**

^{*} p<.05

^{**} p<.01

hours per week. Enlisted mothers had been at their current duty station for a longer period of time and had been on active duty longer.

It is important to note that over 80% of these women plan to remain on active duty. Among the enlisted mothers, 84.9% plan to remain ADAF, 12.3% do not, and 2.7% are undecided. Among the officer mothers, 74.2% plan to stay on active duty, 18.3% do not, and 7.5% are undecided.

One of the contextual factors of interest to this researcher was the effect of having preschoolers in residence, regardless of rank.

Approximately 2/3 of the women, 63.2% (151) in this study had one or more preschoolers, defined as children 5 years of age or younger. The rest of the mothers, 36.8% (88 women) had older children.

A MANOVA and subsequent univariate F tests for the various psychosocial variables by 0, 1, 2, or 3 preschoolers in the home showed a significant value for confrontive coping (F=3.127; p=.027).

To further assess the effect of having preschoolers on confrontive coping patterns, a post hoc oneway analysis of variance was done, contrasting mothers of preschoolers with mothers

with no preschooler. There was a significant difference (p=.045) in confrontive coping, with mothers of preschoolers using confrontive coping less frequently. The most significant difference in confrontive coping occurred between the mothers with no preschoolers (M=47.91) and those with one preschooler (M=44.09) (p=.002) (Table 9). Further analysis contrasting those with 1 preschooler versus those with 2 was not significant (p=.30), and those with 1 versus those with 3 preschoolers showed no significant difference (p=.91) in the use of confrontive coping. Therefore, the number of preschoolers a woman has does not account for the significant difference in confrontive coping, it is the fact that the woman has preschoolers at all that makes the difference.

Table 10 provides a summary of the utilization of some of the selected base services by military mothers, and comments from these women about barriers and needed improvements. The majority of comments were related to childcare.

Table 11 summarizes a few questions from the demographic section regarding how household tasks

Table 9

Sample Means for Confrontive Coping Scale by Number

of Preschoolers in Residence (N=210)

# of Preschoolers	Total (N=)	Sample (M=)	-
0	88	47.91	
1	108	44.09	
2	37	45.24	
3	6	44.67	

15 6.3

Table 10 Comments from Military Mothers about Selected Servies Provided at Medium-sized USAF Installations Service Utilization (%) # of Comments % ("Yes") Gym Facilities 44.4% Comments: Facilities inadequate; programs geared toward men 10 4.2 Childcare Center 24.7% Comments: Total = 210 Inconvenient hours 92 38.5 22.6 54 Dissatisfied with care Too expensive 33 13.8 Sick childcare needed 31 13.0 Mental Health Clinic 8.8% Comments: Concern regarding confidentiality and fear of negative career

impact

Table 11

Household Tasks - Financial Tasks Shared with

Spouse: Hiring Outside Help

Household Task	Total Sample (%)	Enlisted (%)	Officers (%)
Financial Tasks	•		
paying, taxes,	etc.)		
Self	72.8	77.4	65.6
Spouse	16.3	13.0	21.5
Both	10.5	9.6	11.8
Hire Someone to	Clean		
Yes	8.4	2.1	18.7
No	88.7	94.5	81.3
Hire Someone to Yard Work	do		
Yes	9.6	4.8	17.2
No	84.9	91.1	75.3
	· -		

are accomplished. It is interesting to note that 72.8% of the women in this sample personally handle the family financial tasks, and that hiring outside help to clean and do yard work is 4 to 9 times more common among officers than among enlisted women.

Results of Qualitative Analysis

Table 12 is a compilation of additional comments frequently made by these women in a variety of broad categories. Comments and trends will be discussed in depth in this section.

Military Factors

Positive comments about being in the Air Force were made by 16.7% of these women and included interesting, challenging jobs, the overall lifestyle, the support services available, the services and benefits, supportive people, and the opportunity to serve their country. (Examples: "...Most of the time it is great (being an AF mother), however, there are times like long hours and recalls that make it rough."; "I think the support provided by the A.F. is much greater than that provided in the civilian work arena."; "I feel great being an active duty Air Force mother. The

Table 12

Compilation of Additional Frequent Comments

Provided by ADAF Mothers

Comments	Frequency	Percentage
Negative comments about being in the Air Force	92	38.5
Inadequate personal time	75	31.4
Negative comments about family life	57	23.8
Positive comments about the Air Force	40	16.7
Discrimination (for being female or having children		13.0
Positive comments about family life	28	11.7
Inadequate maternity leav	7e 28	11.7
Family separation	25	10.5
Inadequate family time	16	6.7
Currently a student	14	5.9
Inadequate medical care	13	5.4
Cope by separating family life from Air Force life		5.0
Financial concerns (inadequate pay)	10	4.2
Sexual harrassment	9	3.8
Currently pregnant	8	2.3

demands are challenging. There is always something to look forward to. I am proud of myself and my happy baby."; "...I'm proud that I'm serving this country and that I enjoy my AF career and the fact that I am grateful for the benefits that my daughter and I are receiving...my secret to managing demands is patience and optimism.").

Negative comments about being in the Air Force were made by 38.5% of the sample and included the lifestyle, the job itself and the demands required, such as, extra hours, additional duties, short staffing, rotating shifts, recalls, mobility, the risks involved, and negative policies and attitudes, particularly in regards to family issues. Interestingly, only 4.2% mentioned financial concerns or inadequate pay in their negative comments. (Examples: "The Air Force's first priority is the Air Force and the mission. Down the list is the active duty member and further down comes the family - that is why I look forward to separating from the service (I originally came in with intentions to stay for 20 yrs.)"; "I truly enjoy my AF career - however it has resulted in two long marital separations. Single parenting and

loneliness for my partner are outweighing the positives."; "I've come to the opinion this year that the military is no place for a mother.")

The hours worked by these women varied a great deal as indicated by the ranges of work hours per week as well as the requirements for temporary duty assignments (TDYs). The enlisted women worked an average of 44 hours per week with a range of 20-70 hours, while officers averaged 48.5 hours per week with a range of 38-84 hours weekly. The few participants who reported working significantly less than 40 hours per week generally stated they were on restricted duty for medical reasons. TDYs, periods of time when the military requires a member to live and work away from the home base, also varied. Among the enlisted women, 36% stated they had gone TDY in the previous year for an average of 31.6 days with a range of 4 - 280 days. officers averaged 28.2 TDY days with a range of 2 -145 days and 72%, twice as many as the enlisted women, had gone TDY.

Participants were not asked to identify themselves as shift vs non-shift workers, but several women commented that rotating shifts

further challenged their ability to manage all their roles, particularly when they had younger children requiring childcare. (Examples: "I am very dedicated to my work to the point that at times I feel I neglect my family and their needs. I work 10-12 hours/day (if not longer sometimes) 5-6 days per week. When I'm home I'm too tired to give them any time and unfortunately yell at the kids a lot...when I'm working out regularly my stress level is much better balanced."; "...we go TDY a lot and my husband and I both have to go. Nobody seems to care that I have a child that I have to leave. And you don't want to complain because then you get labeled as a trouble-maker."; "More understanding bosses if child sick or that a 50 hour week should be sufficient enough that a "guilt trip" isn't placed on you if you can't be to work as early or stay as late as those without children or spouses.").

Discrimination in the work setting against women in general, and specifically against those with children (and against fathers as well), was mentioned by 13% of the sample. They reported that their supervisors and/or co-workers had negative,

uncaring attitudes towards parents and were inflexible when unexpected family issues arose, such as, the need to take a sick child to the doctor. Some felt they had to overcompensate for their gender by being exceptional performers in order to "prove" themselves in the work place. Other women (3.8%) used the term "sexual harrassment" or described blatant examples of this behavior, stating that this kind of maltreatment greatly increased their feelings of stress. (Example: "Improve sex discrimination awareness programs for military MEN. Emphasize the covert sexism that is still permeating the Air Force (example - commander referring to her as "one of the girls"); "The military is light years from incorporating women. In 3 1/2 years I have been astonished at the mode of thinking. I push paper and I still get discriminated against."; "Stop discriminating against military couples with children."; "Some commanders will not accept women in the AF and especially women with children. We are supposed to be 'warriors', not mothers.").

Some women (5%) found that the only way to cope with the demands of the Air Force and their

family commitments was to completely separate the two worlds. Some accepted this as a reasonable solution to their perceived dilemma, but for others, maintaining a protective facade and denying that their families existed while at work was described as psychologically traumatic. (Examples: "I have learned through the years that you will fair better by doing a good job and separate the two lives. It used to be a time that the Air Force was (FAMILY) - I can honestly say NO MORE. The separation of family and Air Force is a must to keep your sanity."; "I manage by portraying a tough 'warrior' image and pretending I have little interest in my family or home life.").

Another area of concern voiced by 10.5% of these women was family separation/disruption secondary to military requirements, such as, remote tours, TDYs, frequent PCS moves, and inability of military couples to receive a joint spouse assignment. Women who were single parents or who were married to other military members were especially troubled by the real or potential family disruptions, emotional hardships, and expense created by these separations. (Examples: "I feel

I have no control over keeping my family together. The Air Force will separate me from my child and husband for a year and I can't do anything about it. I hate to have to leave my family but if I don't I give up 13 years of work with nothing to show for it."; "While recently on a remote assignment, my children were with my parents and the other with my sister. The financial strain caused by this is unbelievable. It will take years to repair. As a single parent I live on a single income... Most of my current stress is financial.").

At the time of this survey, women were given 4 weeks of convalescent leave following the birth of a child. Most childcare centers will not accept infants less than 6 weeks of age and 11.7% of these mothers felt that 6 weeks maternity leave, the minimum amount of time recommended by the American College of Obstetricians and Gynecologist (ACOG), was necessary with the guaranteed option to take more leave time if desired. Paternity leave, options for either parent to take several months leave without pay following the birth of a child, and the option for women to leave the Air Force

after the child is born rather than only before, were mentioned as desirable policy changes by some of these women. Some women also expressed gratitude that the military provided convalescent leave, viewing this as a benefit not always available in the civilian sector.

It is easy to understand why an adequate maternal/paternal leave policy is an issue for many of these women. Many of them had experienced the effects of the 4 week convalescent leave policy. Ninety per cent of the enlisted women had delivered or adopted a child since they came on active duty (range of 1 to 4 children). Fifty-four per cent of the officers had delivered or adopted since they came on active duty (a range of 1 to 3 children). Several of these women, 2.3%, were currently pregnant. (Examples: "Give women opportunity to take a leave of absence from work after delivery."; "Less restrictive maternity leave policy (and start one fathers can participate in!)"; "Longer postpartum recovery time for C-sections - no way is four weeks adequate. You are recovering from major surgery but your energy is totally depleted with the newborn demands.")

A further area of concern for 5.4% of these ADAF mothers was the access and quality of medical care. Comments included: difficulty obtaining appointments, particularly for family members, long waits to be seen, insensitive health care providers, lack of understanding or inadequate treatment of women's health care issues, such as, postpartal depression, PMS, spouse abuse (sometimes resulting in women seeking care from local, civilian sources), and dissatisfaction with the handling of some pediatric problems. Several women commented that they had utilized or currently were using the services offered by the mental health clinic. Though others stated that they believed they might benefit from such services, 6.3% commented that they were too concerned about lack of confidentiality and the potential for negative career impact to take advantage of this free base service, even if they felt they needed it. Some women did comment that they were satisfied with the military health care delivery system and viewed health care as one of their best military benefits. (Examples: "(I) Use downtown counseling clinic -AF in general has no real experience with (spouse)

abuse."; "OB/GYN needs to understand and treat postnatal depression and PMS...When does the AF recognize women are here and they must deal with it? Male dominance attitude does not have a place in female medical treatment!"; (Use Family counseling or the Mental Health Clinic)..."Why be a marked person?").

Family Factors

Some women commented on the positive impact of having a family (11.7%). They stated that their families enriched their lives and made life more meaningful. They mentioned that the emotional support provided by spouses and children and the way family members shared household responsibilities helped them to feel better about themselves, happier, less stressed, and more in control of their lives. Some commented that they felt very proud and positive about the way they handled their multiple roles, and some even found it easy. (Examples: "I manage with a good understanding husband. It is very hectic and more emotionally straining than I ever could imagine."; "I'm fortunate to have an understanding husband who takes over completely at home when the need arises.

If not for him I would get out. He wants me to continue my Air Force career and so provides me with constant support and encouragement.").

The ADAF mothers in this study also made negative comments about the difficulties involved in managing family commitments. In fact, 23.8% of the participants commented on how stressful having a family is. They frequently used terms, such as, "balancing act" or "juggling act" to describe fellings of role overload. Some of these women mentioned lack of spousal support and inequity related to childcare and household chores as negative factors. Others described stressful family situations which impacted their ability to cope and increased their perceived stress, such as, spouses who were abusive or chemically dependent and children who had special health care needs or behavioral problems. Feelings of guilt were prevalent. Some women felt their families were shortchanged by their demanding lifestyle, and inadequate family time was mentioned as a concern by 6.7% of the participants. (Examples: "As a single parent, it is not easy - The demands of the job as an officer makes it even more difficult...I

feel guilty on both accounts, for not being at work when I should be and if I do go (week-ends and after normal hours), then I feel guilty for leaving the kids with a sitter."; "It seems as though I never have enough time to get the things at home done that need doing...and most importantly, spending quality time with my daughter.").

Inadequate personal time was mentioned by 31.4% of the sample. The demands of the military and of their families, left many of these women with very little personal time and, again, they felt guilty about delegating time to meet their own needs. Some women mentioned that they lacked the energy, as well as the time, to pursue exercise programs, higher education, and activities simply for fun and relaxation. (Examples: "...I never mentioned having time for myself. There simply does not seem to be enough hours in the day."; "I have no time for group meeting or services."; "I take what precious time is left just for me--just quiet time to reflect and recharge my batteries."; "The situation that I am least happy about and am currently trying to resolve is my lack of time for physical exercise.").

between military and family commitments without over extending themselves as "super women" was the key to success reported by some of these mothers. Other women reported that the spiritual aspect of their lives provided a great source of strength, support, and peace of mind. (Examples: "Family is number 1. If family life is running smoothly, i.e. family needs are met - I feel I can give 200% to the Air Force. If my role as mother/spouse is threatened - is is much harder to give to my job."; "...it is important to me to keep my priorities straight at all times - 1. God, 2. Child, 3. Self, 4. Air Force. If at anytime the Air Force and I can't agree I'll get out.").

Childcare

The issue of quality, accessible childcare is a major concern to many of the women in this study. Considering that 58% of these enlisted mothers have preschoolers, 5 years of age or less, and that 44% of the officer mothers have preschoolers, it is understandable that childcare is an important issue. Some women mentioned that being geographically separated from parents and

relatives, who might otherwise assist with childcare, was difficult.

Finding a satisfactory childcare situation as soon as possible after a PCS move and maintaining reliable childcare, flexible enough to meet the demands of a military life style, was a top priority. For single mothers and military couples, finding someone to accept responsibility for dependent children in their absence within 30 days of arrival at a new assignment was reported to be a very difficult task.

Some women were ambivalent about working and expressed concern about having to be away from their infants and young children. They were sad about missing out on some of the growth and development witnessed by their babysitters. Others felt confident about the care their children received at the base or local childcare center or from a private sitter and stated they would not want to be a stay-at-home mother. (Examples: "The absolute worst aspect of being an AF mother is that anxious feeling about finding a child care provider immediately upon PCSing."; "Provide dependent care coverage at the Child Care Centers. I have to pay

a babysitter to (agree to) care for my child so I have someone to take care of her in case of recall or mobilization...(I am) being "held hostage" by babysitters that I must pay to sign the dependent care form so that my responsibilities as defined by the DOD are taken care of.").

On base childcare facilities were utilized by 24.7% of the mothers in this study, and some commented that they were quite satisfied with the personnel, the program, and/or the convenience. There were, however, more than 200 negative comments about the available childcare services or lack of services. Many (92 comments) complained that the hours of operation for base childcare centers were only suited to those who worked Monday through Friday during the day. Shift workers, those on rotating shifts, and week-end workers generally needed to find more flexible services. Some found that the childcare center was not an acceptable alternative during recalls, mobility exercises, or when members had to work 12 hour shifts. Many suggested that 24 hour facilities were needed.

There were 54 women (22.6%) who commented that they were dissatisfied with the quality and accessibility of onbase childcare. They were displeased with the policies, the personnel, the long waiting lists, and the age limits. Some were also concerned about lack of after-school-care programs and summer programs with adequate supervision for older children. Others complained that their bases did not support them in finding other childcare resources and that private onbase sitters were either too limited or not monitored closely enough. Another 33 women (13.8%) complained that the onbase childcare center was too expensive. Some felt childcare should be subsidized and/or that fees should be based on a sliding scale. (Examples: "Child care (needed) for mobilities and extended work hours with rates based on ability to pay, not just one rate."; "The only major problem I've run into is childcare during mobility exercises. My husband and I are both on mobility and almost always have to process together in the middle of the night. I'm not asking them to pay for it - only make it (childcare) available."; "Better child care on base with longer hours.";

"Waiting list (at base child care center) for my 15 month (old) and 4 year old is 7 to 12 months.").

Care for sick children was mentioned as a concern by 31 (13%) of these women. These women described a multitude of problems finding a back-up sitter willing to care for a sick child, getting the child an appointment in the pediatric clinic in a timely manner, dealing with an irate or unsympathetic supervisor and/or co-workers, not to mention trying to mother the sick child. One woman mentioned that at her base a program operated by the hospital had just been initiated to provide limited childcare for sick children utilizing vacant beds so their ADAF parents could continue to work. She believed this would be very useful. (Examples: "Sick (child) care for children on a last minute basis..."; "...also childcare for a sick child is hard to come by but the management does not want the worker to stay home because the child is sick... An understanding supervisor who grants emergency leave for when an employee's child is sick is a real bonus.").

Summary of Contextual Factors Impacting Military Mothers

This summary of the additional comments and suggestions provided by subjects is in no way complete. It is only intended to provide some of the data deemed valuable by those women participating and by this investigator. An entire qualitative study could be done on the volumes of information provided by these participants. Many subjects added one and two additional pages and the time and effort involved in thoroughly analyzing this data, using interrater reliability checks, etc. are beyond the scope of this thesis.

Therefore, the goal was to highlight the major concerns and suggestions offered by these ADAF mothers.

By focusing on these women within the context of their experiences, we can achieve a depth of understanding that can not be realized from the standardized tools used to determine their levels of stress, coping, health status and health practices. We can begin to focus on their world from their various perspectives, understanding how the institutions within which they functioning, the

policies, support systems, and the human beings with whom they interact all play a role in their health, well-being, and ability to cope.

Summary

The findings from this study have been presented and interpreted. The sample has been described in detail and the major scales have been shown to be reliable.

The findings from the research tools measuring the variables of interest have been presented and compared to other samples. When results were available, comparisons were made with samples of working and non-working mothers on the four major tools. Thus, research question one, "What are the stress levels, coping patterns, health practices, and health status of active duty Air Force women, enlisted and officers, with dependent children living at home?" has been answered.

In summarizing the findings related to research question two: Are there differences between enlisted mothers and officer mothers on these variables?, we can conclude that there are statistically significant differences between these two groups based on the results of the MANOVAs done

on the psychosocial variables and on selected demographic variables. Officers were more likely to use confrontive coping than the enlisted mothers, and their health practices were significantly more positive.

Research question three: What are the contextual factors that impact military mothers and how are these factors related to coping patterns, stress levels, health status, and health practices? was answered by presenting the demographic information, trends derived from additional comments made by the participants regarding, services and policies, and quotes from participants about what it is like to be an ADAF mother, how they manage their multiple roles, and the interpersonal relationships and institutional policies that impact their health, stress levels, coping patterns, and health practices.

The lives of these women are impacted not only by their personal attributes, knowledge, resources, and capabilities, but by the potential for others to influence and/or control various aspects of their lives, both at work and at home. Their lives, well-being, and emotional and physical

health are very much tied to the military and family institutions of which they are a part.

CHAPTER FIVE CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS, AND SUMMARY

In this chapter conclusions of the study are drawn, and implications and recommendations are presented. The findings are then summarized.

The purpose of this exploratory descriptive study was to examine the demographic and psychosocial variables associated with the perceived health status and health practices of ADAF women, enlisted and officers, with dependent children living at home. Since a probability-based sampling technique of medium-sized CONUS bases was used, the quantitative findings of this study can be generalized to all active duty Air Force mothers with dependent children in the continental United States at medium-sized bases. However, because research question number 2 focused on differences between officers and enlisted mothers, the need for approximately equal numbers by rank, resulted in some overrepresentation of officers. The qualitative data presented may be more representative of those Air Force moms who were motivated to respond to open-ended questions.

However, the large number who did so indicates that the concerns expressed are widespread.

Conclusions

The following conclusions were drawn from the findings of this study:

- 1. Air Force mothers have a higher level of perceived stress than the national average reported for all women, but a stress level comparable to other working mothers.
- 2. Air Force mothers assess their health status as good, and it is comparable to other working mothers.
- 3. The health practices of Air Force mothers are similar to other working mothers.
- 4. The use of confrontive coping, a problemsolving approach for handling situations perceived
 as stressful, by these mothers is positively
 correlated with perceived health status and
 positive health practices.
- 5. Mothers who are officers use confrontive coping significantly more often than enlisted mothers and have more positive health practices. Mothers with older children use confrontive coping significantly more often than mothers of preschool children.

- 6. The difference in health practices for the officers and the enlisted mothers was directly related to the 4 items of the substance abuse subscale, smoking 1 or more packs of cigarettes per day, drinking 2 or more alcoholic beverages per day, driving after drinking 2 or more drinks, and consuming alcoholic beverages when taking medications.
- 7. Differences in some demographic variables, educational level, age, work hours per week, and TDY requirements, can be partially accounted for by differences in the commissioning requirements and status of officers versus enlisted personnel. Since officers are commissioned after they have completed a Baccalaureate degree, it is not surprising that they are significantly older and better educated and that the average officer at the rank of Captain has been on active duty for a significantly shorter period of time than the average Staff Sergeant. Officer mothers had been married approximately 2 years longer, which again may be age-related. The fact that officer mothers worked significantly more hours per week and that twice as many of them had TDY requirements may

again reflect obligations and demands on time related to rank.

- 8. Officers receive salaries that are considerably higher than enlisted personnel and they are more likely to use financial resources to hire others to assist with housework and yardwork.
- 9. Air Force mothers report that a variety of contextual factors impact their ability to manage multiple role demands. These include Air Force policies and practices regarding: maternity leave; sick child care options; dependent care requirements; family separations, including joint spouse assignments, remote assignments, and TDY requirements; financial security; and attitudes of commanders, supervisors, and co-workers that result in discrimination against women/mothers or sexual harrassment. The need for military support services and programs include: more affordable, accessible, and high quality child care; medical care that is accessible and takes into account the special needs of women and children; mental health services that can be accessed without fear of negative career impact; and gym facilities that encourage women to participate by offering programs, clean, private

female dressing areas, and more flexible hours that allow women with children to participate more easily.

- 10. The impact, both positive and negative, of the family on the well-being of these women and on their ability to manage their multiple roles can not be ignored. The amount and quality of social and emotional support received from the spouse and/or children, equitable sharing of household chores, the time required to attend to family needs, the personal time allocated, the perceived guilt, and the attitudes of the woman and her family toward her work and family roles are all important factors.
- 11. Spiritual support and faith are important for some of these mothers.
- 12. Air Force mothers are influenced, not only by their personal strengths and resources, but by the people, with whom they interact who have the potential to influence and/or control various aspects of their lives. They are very much influenced by both the military institution and the families of which they are a part.

Implications and Recommendations

The findings clearly show that there are differences in confrontive coping and health practices by rank. For the total sample, the correlation between health practices and health status is moderate and significant, and the correlation between confrontive coping and health practices is moderate and significant. The correlation between emotive coping and health practices is negative and low to moderate and significant. The correlational data supports a portion of the theoretical framework proposed by Redland (Figure 1, Chapter 1).

Two perspectives can be taken in view of these findings. One perspective is to focus on changing the individual. This could be accomplished through education and counseling so that the behaviors or perceptions of the individual are changed. The other perspective is to recognize that problems within social and economic institutions may overpower the ability of the individual to cope with the system because the problems which impact the person are rooted in the organization and the change required is beyond the control of the

individual (Pearlin & Schooler, 1978). Using this perspective, changes within the Air Force organization, such as, policies, programs, practices, and attitudes would need to change in order to obtain a better fit between the person and the environment.

There are several implications for nursing practice based on these findings. Using the first approach, nurses who interact with Air Force women with children need to be aware that the high stress levels reported for this group may put these women at risk for both acute and chronic health care problems. The findings indicate that, even though stress levels and health status are not significantly different between the officer mothers and the enlisted mothers, the amount of confrontive coping and the health practices are.

There is evidence to suggest that, from a health perspective, the advantaged situation of the officers, based on higher salaries, more education, and higher status, places them in a better position to manage the multiple role demands, even in view of longer work hours and more TDY responsibilities. For example, because of the available financial

resources, more officers pay others to perform household and yard work, which should give them more discretionary time. Enlisted women with children may require more attention because they have high demands on their time and energy, but the resources which may serve as buffers are generally more limited.

From the second perspective, nurses, as client advocates, need to be aware of ways in which the military organization negatively impacts the health and welfare of military mothers and families.

Nurses can influence local policies and procedures within their medical treatment facilities to make the system more "user friendly". Nurses can also become actively involved in efforts to improve the conditions of military mothers in their local communities and nationally, through professional nursing and military organizations, and through efforts to change and impact policies via legislation.

From a research perspective, further data analysis, including multiple regression analysis, needs to be done on these data. In order to determine more global trends in stress levels,

coping patterns, health practices, and perceived health, the results of studies using employed civilian and military mothers might be compared and contrasted. Funding for nurses to study various aspects of health in military women with children is needed.

From the perspective of the Air Force, the demographic features of the active duty force have changed. Women, including those with children and civilian or active duty spouses, are entering the Air Force and remaining on active duty in increasing numbers. Clearly, most of the women in this study plan to remain on active duty (81%) or are undecided (5%). More active duty men have children and are married to employed civilian spouses and the Air Force now has more active duty couples and single parents than in its history (Segal, 1989).

The Air Force has responded to some of these changes with family oriented programs and policies, but there is evidence based on the comments provided by this sample that further progress is needed. In 1988 the Department of Defense (DOD) conducted a Women's Health Survey which was sent to

14,700 servicewomen worldwide. According to Glenn (April, 1989), based on the preliminary findings of the DOD study, DACOWITS members endorsed 11 formal recommendations to the Secretary of Defense, including legislation to increase funding for child care facilities and services, and granting all new military mothers 6 weeks non-chargeable maternity leave, a policy recently adopted by the Navy.

The importance of high quality, accessible, and affordable child care to military mothers (and fathers) can not be underestimated. Quality childcare with flexible hours, perhaps even 24 hours per day, is essential if parents are to be available for their demanding and often unpredictable duty requirements.

Bronfenbrenner (1988), expressed concern about the welfare of American families and consequently that of our nation because the needs of the work environment are pitted against the needs of the family, resulting in the children and families absorbing the stress and suffering the consequences. Congress has been considering legislation requiring businesses to provide time for new parents to spend with their infants before

returning to work and for attending to family problems, such as, sick children (Bronfenbrenner). Brazelton (1988) stresses the need for a national policy that would provide at least 3 and preferably 4 months of paid leave to new mothers, and 1 month paid leave for new fathers so that family members can take the steps crucial to becoming a new family.

The extension of maternal leave for Air Force mothers to 6 weeks is essential. Other options might include a limited amount of paid paternal leave and the option for mothers to take a leave of absence without pay, if not with pay. Policies and programs that allow parents to deal with a sick child and other family emergencies, need to be developed and implemented so that parents can meet their duty requirements and family responsibilities effectively and with as little stress as possible.

Despite official policies against sexual harassment and discrimination against women, these factors continue to be a problem according to the women in this study. Of special concern is the mention by several women of discrimination and sexual harassment by high ranking officers and

commanders. A system that deals more effectively with offenders, particularly those who are in influential positions where they have considerable control over others and their careers, needs to be in effect. Protection for the victims of discrimination and sexual harassment is essential because retaining valuable members is vital to accomplishment of the mission of the Air Force.

Summary of Recommendations

- 1. Nurses and other health care providers who care for Air Force women with children need to assess the stress levels, coping patterns, and health practices of these clients from their perspective. Appropriate health education and referrals need to be made to help these women improve their health status and well-being.
- 2. Health promotion programs targeting Air Force mothers, especially lower ranking enlisted women who appear to be more at risk and mothers of preschoolers, need to be developed. Group sessions for working mothers focusing on problem-solving skills (confrontive coping), time management, stress management, and improving health practices could be included.

- 3. High quality, affordable, accessible childcare is a necessity. Options besides the onbase facilities, such as, a strong program of monitored, inhome childcare, and on and off base referral systems need to be established. Services which respond to the needs of shift and week-ends workers, as well as services which are available during mobility and other exercises, are essential.
- 4. Changes in Air Force policies that stress the importance of families and proves it with support need to be implemented. These include longer maternity leave, paternity leave, sick child care and family emergencies leave. Efforts to minimize disruptions in family life are important to family functioning.
- 5. Stronger action against sexual harassment and discrimination offenders are needed as well as a better reporting system that protects the victims.

Summary of Study

The subjects were enlisted and officer ADAF mothers between the ages of 18 to 45 years with dependent children in residence who were stationed at 10 randomly selected, medium-sized Air Force installations within CONUS. They were randomly

selected to participate and represented

(disproportionately) each major military career

field. All participants reported on their

perceived stress levels, coping patterns, health

practices, and perceived health status, and

provided demographic information and unstructured

comments, if they desired, related to current Air

Force programs/assistance and their perceptions of

how they manage their multiple r res as an ADAF

mother.

Using a self-report method, subjects completed a questionnaire composed of the Perceived Stress Scale, the Jaloweic Coping Scale, the Personal Lifestyle Questionaire, the Perceived Health Status Index and an demographic sheet devised by the investigator. The questionnaires were mailed to 10 Commander-appointed POCs at each of the 10 bases, and then distributed to the 400 randomly selected women with children, 256 enlisted and 144 officer, at their duty section. Of the 243 surveys returned, 239 met the criteria for an overall return rate of 60%. There were 146 enlisted mothers and 93 officer mothers in this sample. The

reliability coefficients (alpha) for the major scales ranged from .72-.86 for the total sample.

The findings of this study were reported as descriptive and inferential data. In regards to question one, the results indicate that the sample was similar in rank, age, educational level, ethnicity, and marital status to other ADAF officers and enlisted personnel and specifically to Air Force women where statistics were available. Though exact figures for Air Force women with dependent children on these characteristics were not available, it is reasonable to suggest from available statistics that this sample of women is representative of the population from which it was drawn.

Again in relation to research question one, the mean scores and standard deviations on the four major instruments, the PSS, JCS, PLQ, and PHS and the subscales were similar to the mean scores reported by Redland, Budgen, and Sands (1989) on a similar group of employed mothers. Evidence exists that Air Force mothers, and their civilian counterparts, have high perceived stress levels, with mean scores higher than the national norms

reported for females. Perceived stress is negatively correlated with measures of confrontive coping, health status, and health practices, and postively correlated with emotive and palliative coping.

Coping patterns for these military mothers were also similar to those noted by Redland et al. (1989) based on mean scores and standard deviations. Confrontive coping was positively correlated with perceived health status and positive health practices, while emotive and palliative coping were negatively correlated with the two health measures.

The means and correlation for this sample on health practices and perceived health status were similar to those reported by Redland et al. (1989). Air Force mothers perceive themselves to be in good health and their health practices are similar and perhaps slightly better than the "blue collar" working mothers in the study by Redland et al.

In response to question two, there are significant differences between officer and enlisted mothers on particular demographic features. By virtue of their status as

commissioned officers, the officer mothers are more highly educated and receive a higher salary. They also are older and work more hours per week. The enlisted mothers have been on active duty longer and have been at their current duty assignment for a longer period of time.

Significant differences were found between officers and enlisted mothers on the psychosocial variables of confrontive coping (CC) and health practices (PLQ) with officers scoring higher on both variables. There were no significant differences between the two groups on stress, health status, or emotive or palliative coping.

In response to question three, a description of the contextual factors impacting ADAF mothers and their relationship to the variables of interest was provided. Positive comments were made by some of the participants about the military lifestyle, pride in serving their country, pay, benefits, services and programs, certain policies, and supportive supervisors. The military factors of primary concern included: the availability, accessibility, and affordability of quality child care; Air Force policies regarding maternity leave

and time off to care for sick children; family separation, including joint spouse assignment policies, remote assignments, frequent PCSs, and TDYs; attitudes of supervisors and co-workers resulting in discrimination against women and parents, and sexual harrassment of women; negative attitudes towards civilian husbands and lack of programs and support systems for this group; excessive military time commitments and negative attitudes toward families and the emotional and time commitments involved in being a parent/spouse; access and quality of medical care, particularly, timely and specialized care for women and children.

Some of these women commented on the positive impact of their families, mentioning the love and support of their spouses and children, sharing of household and childcare responsibilities, self-esteem, pride in being able to manage their multiple roles, and the joy of being part of a family. Family and personal factors negatively impacting these military mothers include: role overload; guilt; inadequate personal and/or family time; lack of emotional or social support from the

spouse or children; lack of support with household tasks; and sick or abusive family members.

The health and well-being of this rapidly growing Air Force subgroup is important. The majority of the Air Force women in this study are planning to continue their multiple roles, of m ther, military member, and for some spouse. This study provides some of the needed groundwork for understanding the stress levels, coping patterns, health practices, and the health status of Air Force women with children. This study adds to the growing body of knowledge about working mothers. Further study of active duty military women with children is warranted.

APPENDICES

APPENDIXA

COMMANDER'S LETTER

name address city, state zip

Dear (salutation)

I am an Air Force sponsored master's student at The University of Texas at Austin majoring in Maternal-Child Nursing and Administration. I have elected to do a thesis and have received approval from the Air Force to study active duty military mothers (USAF survey control #88-93). This study will compare coping patterns, stress, health status, and health practices of enlisted mothers and officer mothers.

I am not aware of any previous Air Force studies which have focused on these or similar healthrelated variables for this ever-increasing group of Air Force women; however, one recent Army study has explored the relationship between health, role attitude, role strain, and social support among Army mothers. Extrapolation of information from Air Force Magazine (May, 1988) and AFMPC indicates that a base similar to yours would have 144-252 Air Force mothers. The study I am doing is similar to a civilian study currently being conducted on three independent civilian samples by Dr. Alice Redland, a professor at The University of Texas at Austin and the chairperson of my thesis committee. research is being supported by a grant from the National Center for Nursing, National Institute of Health.

Using the ATLAS computer system, your base and nine other medium-sized (4000-7500 ADAF personnel) CONUS Air Force bases have been randomly selected to participate in this study, provided Commander approval is obtained. A total of 400 women, 200 enlisted and 200 officers, will be randomly selected to participate, again using the ATLAS computer. With your approval, 40 military mothers, 20 enlisted and 20 officers, from your base will be asked to participate by completing a questionnaire.

In order to conserve my personal out-of-pocket expenses for mailing (frank mailing is not authorized for this type of student study), I would like you to appoint an individual to serve as the point of contact (POC). That way I can bulk mail the 40 survey packets to a responsible individual at your base who would be willing to distribute the packets via interoffice mail, serve as the collection point for the returned packets, send a standardized follow-up reminder letter one time, and then mail the surveys back to me, again at my expense. I will provide clear guidelines for the survey participants and for the POC. I will make every effort to minimize the amount of time required by the POC by sending addressed packets ready to distribute to each participant in her duty section via interoffice mail. Strict confidentiality in handling the completed questionnaires is essential. To facilitate the entire process, I have prepared a checklist for the POC to use.

If you have any questions, please feel free to contact me at (512) 445-2703. Please complete the approval/disapproval form and return it to me at your earliest convenience. If you do not wish the military women at your base to participate, please let me know so that another Commander can be approached as soon as possible. This will be a sizeable study for a master's thesis and my time frame for study completion and graduation is the summer of 1989. I would like to have all questionnaires completed and returned to me by mid-November.

I have included an abstract of the propsed study, a copy of the checklist I will send to aid each POC and ensure continuity of data collection, and a sample survey packet for you to review. I am excited about this study and believe that the information obtained will provide the Air Force with new insight about the 22-23,000 women classified as Air Force mothers and the programs and incentives needed to keep them healthy and content about remaining on active duty. After the study is completed, I will be happy to provide you with study results.

For your convenience, I have taken the liberty to design a response sheet that you can use to inform me about your decision. Simply complete it and please return it to me in the preaddressed envelope.

Thank you for your time. I hope to have your approval and the support and participation of your people. If I do not receive a response from you by ______, I will call you to answer any question you may have.

Judith C. Mayne, Maj, USAF, NC AFIT Graduate Student The University of Texas at Austin

- 7 Atch
- 1 Commander Approval/Disapproval Form
- 2 Abstract
- 3 Air Force Mothers' Letter
- 4 POC Letter and Checklist
- 5 Reminder/Thank You Letter
- 6 Questionnaire

Commander Approval/Disapproval Form

I, _	, Base Commander of, APPROVE / DISAPPROVE (please
"Cop: Duty stud; Judi:	le) the participation of my personnel in the ing, Stress, and Health Practices in Active Air Force Women with Dependent Children" y, USAF SCN 88-93, being conducted by Major th C. Mayne, AFIT Graduate Student, The ersity of Texas at Austin.
I he	ase continue if approval is granted.) reby appoint the following individual to serve ne base Point of Contact (POC) for this ect:
Name	Rank
Duty	Title/Position
Duty	Address
Offic	ce Symbol
Auto	on Home Phone
Home	Address

As the Commander, I have discussed this study with the above named individual and he/she has willingly agreed to act as the POC for the investigator and for survey participants. He/She agrees to comply with the written and verbal instructions of the investigator regarding the distribution, retrieval, and handling of the survey materials so that research consistency and strict confidentiality will be maintained.

(Typed or Printed Name, Duty Title, Rank)
(Signature)

(Date)

Thank You. Please return this form in the stamped, self-addressed envelope to:

Major Judith C. Mayne 7504 Arboleda Cove Austin, TX 78745

APPENDIX B

COVER LETTER

Dear Air Force Mother,

Several recent studies have focused on working women with children and how they manage the demands of multiple roles. This research has not, however, focused on a very special group of women, military mothers. Juggling the roles of military member, mother, spouse or single woman, homemaker, etc. can be a challenge for the 22,500 ADAF women with dependent children, 30% of all ADAF women.

I realize that an additional time commitment is asking a lot of you, in view of your already hectic schedule. Please let me explain further. You have been randomly selected via the Air Force computer system to participate in a study of ADAF mothers. I am an ADAF nurse, mother, and graduate student at The University of Texas at Austin School of Nursing. I am particularly committed to the health needs of this group and eager to learn about the coping patterns, stress, and health practices of military mothers. This knowledge could be used by the Air Force as a basis for planning programs and developing policies important to the welfare and retention of Air Force women with children.

According to the Air Force ATLAS Computer system, you are an ADAF female, stationed at a medium-sized base in CONUS, between 18 and 45 years of age, and you have at least one dependent child 18 years or less residing with you. (If you do not meet these criteria, please affix the enclosed label with the address for the base assigned Point of Contact (POC) to the survey envelope, write "N/A" in large letters on the cover page of the survey, and return the survey to your base POC via interoffice mail). You were selected as one of 400 women, 200 enlisted and 200 officers. Air Force mothers from 10 bases altogether will be surveyed. Your Base Commander has given his approval and has appointed a POC to distribute the questionnaires to 40 individuals from your base who were randomly selected by the ATLAS computer system. assigned POC (not the Commander or supervisors) will know which Air Force mothers have been asked to participate. He/she has been instructed not to

open the completed, sealed packet you return. I am not asking for your name or social security number on the questionnaire, and if you wish to assure your anonymity, please do not place such identifying information on the questionnaire or the return envelope. In that way, the personal information you provide will remain private.

The survey consists of 6 separate scales, representing the variables of interest to working mothers, and the information sheet. Expected time to complete this questionnaire is 30-45 minutes. I realize this requires a substantial commitment of your limited personal time, but please consider the potential benefits these findings may have for Air Force mothers as a group. You will probably find the survey thought-provoking and interesting as well.

Any information obtained through this study that could be identified with you personally will remain strictly confidential and disclosed only with your written permission. The coding numbers on the survey are for record-keeping purposes only. The overall results of the study will be given to the Air Force so the findings can be used to benefit Air Force women. The results will be written in my thesis and may be published in appropriate journals in order to share this information with other military and civilian health care providers interested in working mothers with children. In this way your contribution to knowledge about the coping patterns and health of military mothers will have practical application. I will also be happy to provide you with a summary of the study results if you desire.

Your decision to participate is strictly voluntary (non-participation will not be held against you in the future by the USAF or The University of Texas at Austin) and would be greatly appreciated. Only women like you can contribute the vital information, through your first-hand experience, needed to increase understanding about the positive and negative aspects of being an Air Force mother.

If you decide to participate, please complete the enclosed survey packet according to the instructions for each scale. You may choose to discontinue your participation at any time without prejudice. Please return the survey within 10 days of receiving it through interoffice mail in the same envelope (or the same size envelope), affixing the enclosed label for your base POC over your name (crossing through it if desired), and sealing the envelope securely. If you choose not to participate, simply discard this packet.

If you have any questions, please feel free to ask me. I will be at The University of Texas at Austin until July, 1989. My phone number is (512) 445-2703 and my address is 7504 Arboleda Cove, Austin, TX 78745. My thesis Chair, Dr. Alice Redland, (1700 Red River, The University of Texas at Austin, Austin, TX 78701-1499, (512) 471-7311), who is doing similar studies with civilian working mothers, will be happy to answer any additional questions you may have. Many thanks for considering this request. Your contributions and efforts are greatly appreciated.

Judith C. Mayne Major, USAF, NC

APPENDIX C

Air Force Mothers Survey

I. These questions ask you about your feelings and thoughts during the last month. In each case you will be asked to indicate how often you felt or thought a certain way. Although some of the questions are similar, there are differences between them, and you should treat each one as a separate question. The best approach is to answer each question fairly quickly. That is, don't try to count up the number of times you felt a particular way, but rather indicate the alternative that seems like a reasonable estimate.

For each question choose from the following:

- 0. Never
- 1. Almost Never
- 2. Sometimes
- 3. Fairly Often
- 4. Very Often

In the last month, how often have you...

- 1. been upset because of something that happened unexpectedly?
 - 0 1 2 3 4
- 2. felt that you were unable to control the important things in your life?
 - 0 1 2 3 4
- 3. felt nervous and "stressed"?
 - 0 1 2 3 4
- 4. dealt successfully with irritating life hassels?
 - 0 1 2 3 4
- 5. felt that you were effectively coping with important changes that were occurring in your life?
 - 0 1 2 3 4
- 6. felt confident about your ability to handle your personal problems?
 - 0 1 2 3 4
- 7. felt that things were going your way?
 - 0 1 2 3 4
- 8. found that you could not cope with all the things that you had to do?
 - 0 1 2 3 4
-). been able to control irritations in your life?
 - 0 1 2 3 4
- 10. felt that you were on top of things?
 - 0 1 2 3 4

- 11. been angered because of things that happened that were outside of your control?
- 12. found yourself thinking about things that you have to accomplish?
- 1 2 3 13. been able to control the way you spend your time?
- 2 3 1 14. felt difficulties were piling up so high that
- you could not overcome them? 3 2 1

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5. Almost Always										
1.	Worry 1		3	4	5					
2.	Cry.	4	3	•	5					
	1		3 .	4	5			_		
	Work	off te	ension	n wit	h p	hysi	cal	act	ivity	or
exe	rcise. 1	2	3	4	5					
4.	"Hope			ys wi		get	bet	ter.	••	
5.	Laugh	_	_	-	•	that	th:	ings	coul	d get
wor	se.									
	1	2	3	4	5					

```
6. Think through different ways to solve the
problem or handle the situation.
    Eat; smoke; chew gum.
              3
    Drink alcoholic beverages.
              3
    Take prescriptions or over-the-counter
medications
     1
10. Try to put the problem out of my mind and think
of something else.
     1
          2
11. Let someone else solve the problem or handle
the situation for me.
12.
   Daydream; fantisize.
               3
    Do anything just to do something, even if I'm
not sure it will work.
14. Talk the problem over with someone who has
been in the same type of situation.
         2
              3
15. Get prepared to "expect the worse".
          2
               3
                    4
16. Get mad; curse; swear.
               3
17. Accept the situation as it is.
18. Try to look at the problem objectively and see
all sides.
    1
               3
19. Try to maintain some control over the
situation.
20. Try to find purpose or meaning in the
situation.
21. Pray; "put my trust in God."
         2
22. Get nervous.
          2
23. Withdraw from the situation.
          2
               3
24. Blame someone else for my problems or the
situation I'm in.
                         5
    1
         2 3
```

25. Actively try to change the situation 1 2 3 4 5
26. Take out my tensions on someone or something
else.
1 2 3 4 5
27. Take off by myself; "want to be alone".
1 2 3 3 4
28. Resign myself to the situation because "things
look hopeless".
1 2 3 4 5
29. Do nothing in the hope that the situation will
improve or the problem will take care of itself.
1 2 3 4 5
30. Seek comfort or help from family or friends.
1 2 3 4 5
31. Meditate; use yoga, biofeedback, "mind over
matter".
1 2 3 4 5
32. Try to find out more about the situation so I
can handle it better.
1 2 3 4 5
33. Try out different ways of solving the problem to
see which works the best.
1 2 3 4 5
34. Resign myself to the situation because it's "my
fate"; there's no sense trying to do anything about
it.
1 2 3 4 5
35. Try to draw on past experience to help handle
the situation.
1 2 3 4 5
36. Try to break the problem down into smaller
pieces so I can handle it better.
1 2 3 4 5
37. Go to sleep, figuring "things will look better
in the morning." 1 2 3 4 5
38. Set specific goals to help solve the problem.
1 2 3 4 5
39. "Don't worry about it, everything will probably
work out fine."
1 2 3 4 5
40. Settle for the next best thing to what I
really want.
1 2 3 4 5

III. We are interested in the way people are feeling these days. Use the following numbers to indicate your response:

- 1. Yes
- 2. No

During the past few weeks, did you ever feel...

- 1. Particularly excited or interested in something?
 - 1 :
- 2. So restless that you couldn't sit long in a chair?
 - 1
- 3. Proud because someone complimented you on something you had done?
 - 1 2
- 4. Very lonely or remote from people?
 - 1 2
- Pleased about having accomplished something?
 2
- 6. Bored?
 - 1 2
- 7. On top of the world?
 - 1 2
- 8. Depressed or very unhappy?
 - 1 2
- 9. Things were going your way?
 - **2**
- 10. Upset because someone criticized you?

Most people have some sense of how their life is going, how satisfied they are with how they are living their lives. We are interested in finding out how satisfied you are with different parts of your life. Please indicate your responses to the questions by marking the number that corresponds to your answer: Completely Completely Satisfied Satisfied Neutral 3 5 All things considered, how satisfied are you with your family life -- the time you spend and the things you do with members of your family? 5 All things considered, how satisfied are you with your friendships--with the time you can spend with friends, the things you do together, the number of friends you have, as well as the particular people who are your friends? 5 3 4 6 All things considered, how satisfied are you with your job?

4. All things considered, how satisfied are you with your housework?

1 2 3 4 5 6 7

5. All things considered, how satisfied are you with the ways you spend your spare time?

1 2 3 4 5 6 7
6. The things people have—housing, car, furniture, recreation, and the like—make up their standard of living. Some people are satisfied with their standard of living, others feel it is not as high as they would like. How satisfied are you with your standard of living?

1 2 3 4 5 6 7
7. How satisfied are you with you family's situation as far as savings and investments are concerned?

1 2 3 4 5 6 7

- 8. If you have an intimate relationship with another adult, all things considered, how satisfied are you with that relationship?
- 1 2 3 4 5 6 7 (__ Check if intimate relationship does not apply to you.)

IV. Health Perceptions Questionnaire

We are interested in knowing your perceptions of your health. Please read each of the following statements, and then indicate whether the statement is true or false for you. There are no right or wrong answers.

Use the following numbers to indicate your response:

- 1. if definitely false for you.
- 2. if mostly false for you.
- if you don't know whether it is true or false for you
- 4. if mostly true for you.
- 5. if definitely true for you.

Some of the statements may look or seem like others, but each statement is different, and should be rated by itself.

- 1. According to the doctors I've seen, my health is now excellent.
 - 1 2 3 4 5
- 2. I seem to get sick a little easier than other people.
 - 1 2 3 4 5
- 3. I feel better now than I ever have before.
 - 1 2 3 4 5
- 4. I will probably be sick a lot in the future.
 - 1 2 3 4 5
- 5. Most people get sick a little easier than I do.
 - 1 2 3 4
- 6. I am somewhat ill.
 - 1 2 3 4 5
- 7. In the future, I expect to have better health than other people I know.
 - 1 2 3 4 5
- 8. I'm not as healthy now as I used to be.
 - 1 2 3 4 5
- 9. My body seems to resist illness very well.
 - 1 2 3 4 5
- 10. I'm as healthy as anybody I know.
 - 1 2 3 4 5
- 11. I think my health will be worse in the future than it is now.
 - 1 2 3 4 5

12. My health is excellent.

2 3 4 5

13. I expect to have a very healthy life.

1 2 3 4 5

14. I have been feeling bad lately.

1 2 3 4 5

15. When there is something going around, I usually catch it.

1 2 3 4 5

16. Doctors say that I am now in poor health.

1 2 3 4 5

17. I feel about as good now as I ever have.

1 2 3 4 4

V. Personal Lifestyle Questionnaire.

The following list includes a description of activities which may or may not relate to your usual living pattern. Please indicate to what extent the activity applies to you by picking ONE number for each item. Use the following choices:

- 1. Never
- 2. Occasionally
- 3. Frequently
- 4. Almost always
- 1. See a health care provider for a check-up at least yearly.
 - 1 2 3 4
- 2. Get together with friends.
 - 1 2 3 4
- 3. Eat at regular times during the day.
 - 1 2 3 4
- 4. Wear seatbelts while riding in an automobile.
 - 1 2 3 4
- 5. Eat foods from each of the food groups daily (meat, milk, bread, fruits and vegetables).
 - 1 2 3 4
- 6. Communicate concerns with another person.
 - 1 2 3 4
- 8. Drive after drinking 2 or more alcoholic beverages.
 - 1 2 3 4
- 9. Get adequate sleep (7-8 hours each night).
 - 1 2 3 4
- 10. Have a planned exercise program.
 - 1 2 3 4
- 11. Climb at least five flights of stairs or walk one mile each day.
 - 1 2 3 4
- 12. Stay within 10 miles per hour of the speed limit while driving.
 - 1 2 3 4
- 13. Smoke one or more packs of cigarettes daily.
 - 1 2 3 4
- 14. Add salt to food after preparation.
 - 1 2 3 4
- 15. Take time to relax 15-20 minutes daily.
 - 1 2 3 4
- 16. Drink more than 2 alcoholic beverages per day.

17. Play sports, jog or participate in other physical activity at least three times weekly. 2 18. Meet needs for intimacy. 19. Limit caffeine intake to 3 cups daily (includes coffee, tea, and colas). 2 1 20. Smoke in bed. 21. Have a dental check-up yearly. 22. Do a monthly self-breast exam. 23. Maintain weight within desirable limits avoiding both overweight and underweight. 3 24. Avoid alcoholic beverages when taking medication.

1

2 3

PERSONAL INFORMATION SHEET

I am interested in knowing more about your background, Air Force responsibilities, and family life. Please complete the following information in the space provided.
1. How many hours per week do you usually work?
2. What is your AFSC? Duty title/speciality
3. Age?
4. Rank?
5. How long have you been on active duty?
6. How long have you been at your current duty station?
7. Have you been TDY in the last year? yes noIf yes, approximately how many total days?
8. Do you plan to stay in the Air Force? yes no
9. Marital Status (please check one) marrieddivorcedseparatednever marriedwidowed
10. If married, how long have you been married to your partner?years or months (circle)
11. If married, is your husband active duty? yesno
12. If both of you are active duty, are you on a joint assignment? yes no

13. How many children do you have?naturaladopted	
foster	
stepchildren	
total # of children	
14. How many of the above children reside with you	ı
at least 9 months of the year?	
With whom do they reside when not with you?	
ex-husband	
parent(s)	
other (Please explain	L
15. Please list the age and sex (code of 1 or 2) of each child who resides with you at least 9 months of the year:	
Age Sex (Male-1; Female- 2))	
16. How many, if any, of your children were born since you went on active duty?	
17. Do you have any other dependents residing with	1
you other than a spouse or children? yes no	_
Explain relationship and number, please, if	
applicable	
	_
18. Please indicate which of the following best	
describes your ethnic origin.	
American Indian or Alaskan Native	
Asian or Pacific Islander	
Black, not of Hispanic Origin	
Hispanic	
White, not of Hispanic Origin	
Other (Explain please	-
·	

19. What is your highest level of education?
(check one)
High School/GED
1 year of college
2 years of college
3 years of college
4 year college degree
advanced degree
other
(Please explain
·
20. Do you stay in the Air Force primarily for
(check one)
family (financial) reasons
personal (motivational) reasons?
21. In your family, who usually does the financial
tasks (paying bills, balancing checkbook, getting
income tax done?
I do
spouse/partner
other
22. Do you currently hire anyone to help with home
chores?
Yes No
clean house
yard work
Other (Please explain
/
23. Do you currently use the following base
services? If not, briefly explain your primary
reason for not using each.
(Example: inconvenient hours, not enough personal
time, prefer non-base service, no need for it,
etc.)
Yes No Briefly explain why not, please.
ChildcareCenter
Family Support Center
Gym/Fitness Program
Family Counselling/Mental Health Clinic

Force cope	e imp	prove e eff	or pro	ovide 1 ly?	to help	milita	the Air ry mothe if need	
comme Air I deman	ents Force	abou Moth of the	t what her, an ese mui	it is nd how ltiple	you per	be an sonally (Use	onal Active y manage the back	the
	-							

Thank you very much for your assistance and the time you spent to complete this questionnaire. This project will not be finished until the summer of 1989. If you are interested in knowing the final results of this study, please enclose your name and address on a separate piece of paper and I would be happy to share a synopsis of my overall findings with you. Without your assistance, information about coping and health in military mothers would be unknown. I greatly appreciate your efforts.

APPENDIX D

POC LETTER

name
address
city, state, zip

Dear (salutation)

First of all, let me say that I am quite pleased that (commander______) has selected you to be the base point of contact (POC) for this research project and that you have accepted. I realize this is another additional duty for you and that your time is valuable and probably very limited. Therefore, I have done everything in my power to keep your role in this as straightforward as possible.

Attached you will find an abstract of the study we are about to begin. I am interested in learning more about how Air Force women with dependent children, officers and enlisted, cope and how coping and stress impact their health practices. A series of three similar studies are currently underway with civilian mothers, but this is the first such study utilizing military women. I believe the results of this study can be used to help develop health programs important to these women.

Since I am doing this study for my thesis, it is Air Force approved, but not Air Force funded. Therefore, I am not allowed to use "frank" mailing to distribute the surveys. Mailing such a sizeable questionnaire is very expensive and since I have randomly selected 400 women within CONUS from ten bases to participate, postage to the women at their home addresses and paid return postage costs would have been astronomical for me. That is why I have solicited your help.

If the results of research are to be worthwhile and useful, it is essential to have an appropriate study design, consistency, confidentiality, and an adequate sample size. I have prepared a checklist for you and the other POC's to follow so that each survey will be handled appropriately and each participant will receive the same information and

Just a few points need to be strongly approach. emphasized. The women were selected randomly and are being asked to participate voluntarily. that at least 50% of the women selected will respond, but please do not try to "encourage" these women to participate or allow women not on the selection list to complete a questionnaire. only reminder you should give to all women selected to participate is the standard follow-up letter The women have been assured that you are enclosed. the only person on the base who is aware that they have been asked to participate and that no one on their base, including you, will read their responses to the questionnaire. I am counting on you to maintain my promise of strict confidentiality.

If you need to contact me, my address is 7504 Arboleda Cove, Austin, TX 78745; phone number (512) 445-2703. Again thank you for your support and for agreeing to take on this task. Please let me know if you have any further questions. I would be happy to provide you with a synopsis of the study results if you desire.

Sincerely

Judith C. Mayne, Major, USAF, NC AFIT Student The University of Texas at Austin

POC Checklist

DATE DONE STEPS TO DO Inventory the contents: 1 POC Checklist (1) 2 Abstract (1) 3 Sample Distribution Packet (1) 4 Preaddressed Survey Packets (40) 5 Preaddressed Reminder Letters (40) 6 Prepaid return postage sticker Distribute survey packets ASAP via interoffice mail (date sent -Be sure all returned survey envelopes have been sealed securely and place in a secured area. Maintain Confidentiality! Send preaddressed reminder letters to all participants 2 weeks after surveys are sent (date to be sent -Copy your sample survey and send it to any participant who reports that she has lost her survey but still wants to participate 6. Allow 2 more weeks for return of the outstanding surveys (F/U date -7. Then mail all returned surveys to me, using

8. Pat yourself on the back for a job well done!

the prepaid postage sticker

APPENDIX

REMINDER/THANK YOU LETTER

Dear Air Force Mother,

Approximately 2 weeks have gone by since I sent you a letter and survey requesting your participation in a study designed to learn more about busy ADAF mothers like you. I am an Air Force nurse in graduate school (and a mother) interested in learning more about the coping patterns, stress, and health practices of military women who manage multiple roles.

Because no attempt is being made to determine who has returned a completed questionnaire and who has not, I have asked the POC to send this reminder letter to all the women from your base who were asked to participate. If you have already completed and returned the survey, thank you very much for your interest and support. On the other hand, perhaps you have been very busy (as usual) and have not had a chance to sit down, look through the survey, and begin what appears to be a major undertaking. Completing the survey may give you insight about how you currently manage your life or provide ideas for modifying your current health patterns. It might even be fun to do once you get motivated to begin. Please reconsider.

As mentioned in the introductory letter, participation in this survey is strictly voluntary and all information provided by participants is handled confidentially. The POC, (name of POC), has been instructed not to open the sealed envelopes containing completed surveys, nor to divulge the names of those selected to participate to anyone. If you would like to complete your survey, there is still time to do so. If you no longer have your survey or if you have any questions, please call your POC at ext. (#). He/she will be glad to send you another one. Then complete it and return it to the POC at (address) via interoffice mail as soon as you can. Remember to seal it securely in an envelope.

Again, thank you very much for giving this matter your time and consideration. I am very aware that your personal time is limited, but only you and

other women like you can accurately describe the Air Force lifestyle for women with children and perhaps identify special needs and creative solutions.

Judith C. Mayne, Maj, USAF, NC Graduate Student The University of Texas at Austin School of Nursing APPENDIX F

QUOTES FROM ADAF MOTHERS

In this section, quotes from participants will be used to provide further input about how their lives are impacted by and might be improved by the Air Force. Some quotes were selected because they exemplified trends stated by many women. Others were used because the examples were poignant, even though the concern voiced might not have been mentioned as frequently by other mothers.

"My family is what keeps me going. I really feel that the service should not allow married couples to both be in the service. Realistically you can not have a real family life when both parents are committed to the service."

"Being an Air Force (mother) has no real affect on my private lifestyle and family life. I would be totally concerned if it did. I have learned through the years that you will fair better by doing a good job and separate the two lives. It used to be a time that the Air Force was (FAMILY) - I can honestly say NO MORE. The separation of

family and Air Force is a must to keep your sanity."

"Child care (needed) for mobilities and extended work hours with rates based on ability to pay, not just one rate. Also - single parent support group."

"I think about my job when I am at work and deal with the problems when they come up. I try my best to change things if I can, but if I can"t I deal with it...I don't bring my problems at work home with me. I look at my problems as a new challenge and then I go head first and try to solve them."

"The only major problem I've run into is childcare during mobility exercises. My husband and I are both on mobility and almost always have to process together in the middle of the night. I'm not asking them to pay for it - only make it (childcare) available."

"Short of paying for a baby sitter for me, they are doing all they can. In fact, there are lots of

good programs available and I take advantage of some. As a single parent, it is not easy - The demands of the job as an officer makes it even more difficult...I feel guilty on both accounts, for not being at work when I should be and if I do go (week-ends and after normal hours), then I feel guilty for leaving the kids with a sitter...It ain't easy."

"Sick care for children on a last minute basis - Longer maternity leave - 6-8 weeks, not 4 weeks. Helps when you have a spouse who contributes to daily chores and child care..."

"Improve sex discrimination awareness programs for military MEN. Emphasize the covert sexism that is still permeating the Force (example - commander referring to her as "one of the girls"). It seems that when a father brings his child to the doctor, he's a "really neat father," but if a mother brings her child in- she is criticized for letting her children disrupt her job!"

"The absolute worst aspect of being an AF mother is that anxious feeling about finding a child care provider immediately upon PCSing. I usually use permissive TDY to accomplish this. I also hate waking my kids up at 4 a.m. for mobility recalls, but that's the mission..."

"A woman's peace of mind on the job or should I say
"a mother's" depends on the knowledge that her
children are safe and being taken care of.
Unfortunately babysitters are mostly found by word
of mouth...Also childcare for a sick child is hard
to come by but the management does not want the
worker to stay home because the child is sick...An
understanding supervisor who grants emergency leave
for when an employee's child is sick is a real
bonus."

"It's pure hell and no one cares. Some months are worse than others. The Air Force comes first, all else be damned is their attitude. I manage as all other single mothers do, only more so in the military, by handling each crisis as it comes along

- which is frequently (nurses working rotating shifts and week-ends)."

"The Air Force's first priority is the Air Force and the mission. Down the list is the active duty member and further down comes the family - that is why I look forward to separating from service (I originally came in with intentions to stay for 20 yrs.)"

"Better child care on base with longer hours. Give women opportunity to take a leave of absence from work after delivery...Most of the time it is great (being an AF mother), however, there are times like long hours and recalls that make it rough."

"(I) Use downtown counseling clinic - AF in general has no real experience with (spouse) abuse.

Education is not enough...I was an abuse victim for eight years...The victim is still a victim within the work area...I have paid for being an abuse victim within the Air Force for the last two years."

"(The AF) ...Give you 6 months to get below your maximum weight standard after child birth - 90 days is totally unrealistic!!!!!...If you have two active duty parents do not send them remote at the same time."

"I manage with a good understanding husband. It is very hectic and more emotionally straining than I ever could imagine."

"I have no time for group meeting or services. I had gone to a group meeting once and listened to a group of people feel sorry for themselves. I made a commitment to the service to do my job and that is what it is. How I progress is my career. When I got married...I had to make a decision what I was going to put first for the two years. I did feel as though I was in a tug of war with myself. For myself I found the only way to keep my position in the service and to have my home life was to only do what my daily duties as an Air Force member and leave my work there. Then go home and be a homemaker, and do both to the best of my ability but never mix the two."

"I think the support provided by the A.F. is much greater than that provided in the civilian work arena."

"OB/GYN needs to understand and treat postnatal depression and PMS. I suffered from both and every doctor I spoke to told me I overreact or need mental health Common sense told me otherwise. Six years after the birth of my son, I got "brave" enough (or desparate enough) to chance being sent to mental health and got lucky...Information is non-existent to women in these areas!... When does the AF recognize women are here and they must deal with it? Male dominance attitude does not have a place in female medical treatment!"

"The military is light years from incorporating women. In 3 1/2 years I have been astonished at the mode of thinking. I push paper and I still get discriminated against. In my job I am the <u>best</u> but I can't go any higher because of my gender. As a woman I have been harassed for how I look. I wasn't hired for my looks, I was hired for my

ability which I have worked hard to achieve. I balance a hectic work schedule and a small child to the best of my potential and the military still expects more. I get to play superwoman at work and supermom at home - it doesn't leave much left (for me) after such stellar performances in both. How do I do it? I take what precious time is left just for me--just quiet time to reflect and recharge my batteries."

"Eliminate the need for (child care center)
reservations, there are times when we are called
without advance notice. Change the "OWC" to "OSC"
- officrs' spouse club"

"Waiting list (at base child care center) for my 15 month and 4 year old is 7-12 months."

"I feel I have no control over keeping my family together. The Air Force will separate me from my child and husband for a year and I can't do anything about it. I hate to have to leave my family but if I don't I give up 13 years of work with nothing to show for it. (My career field

isn't highly sought after in the civilian community
- radar operations)."

"The situation that I am least happy about and am currently trying to resolve is my lack of time for physical exercise... I am considering trying to exercise after my child goes to bed, but...the physical fitness center on base closes at 1800.

Maybe it would help if those hours were extended to 2000 or 2100 ."

"I truly enjoy my AF career - however it has resulted in two long marital separations. Single parenting and loneliness for my partner are outweighing the positives. Being a single parent of three young children is the pits. I feel like all I do is work. Life is short and I feel like I have to find more time for fun."

"Comments - Being an AF working mother means being tired all the time. Means being frustrated at too much to do and too little time, can't get anything done. Within 2 years, one of us is going to quit and stay home."

"(I) Don't know how single mothers cope with all the demands. It's almost more than I can handle with a very supportive husband."

"They could be a little more understanding when babysitters and back-up sitters are unavailable and not threaten to discharge you if it happens again, etc. The child care center on base could also cost a little less. This one here costs more than most off base establishments. We also need more than 30 days to complete dependent care. When I first PCS'd here my deadline to find someone in the event of mobilizing was 30 days. Not enough time to establish a relationship with someone trustworthy. The first month is spent inprocessing and getting settled - not making friends."

"While recently on a remote assignment, my children were with my parents and the other with my sister. The financial strain caused by this is unbelievable. It will take years to repair. As a single parent I live on a single income... Most of my current stress is financial."

- "...I am here by way of personal choice. But as a military member it appears sometimes that we cannot lead a normal family life due to family separation such as, remote assignments, contingency, differing duty hours, etc. the list goes on and on...I do enjoy the A.F. and my job but life at home seems so incompatible with the Air Force at times...In short you either can have children...or you should not be in the military...Sure they say "family comes first" but when it gets down to the point...the AF needs come first."
- "...Some of the men are still a little chauvinistic concerning unwed mothers...when an unwed mother gets into trouble...they try to make it really uncomfortable to stay in the Air Force. I have gotten into financial difficulty and instead of helping me they had me send my son home to my mother which is very trying mentally...Where as a man doesn't have that problem other men admire them for what they do (as a single parent) while scorning women who are doing the same thing."

"Stop discriminating against military couples with children. Less restrictive maternity leave policy (and start one fathers can participate in!). I feel I have damaged my chances for professional advancement by having my daughter but I don't regret it. I thought hard about it and my husband and I made a conscious decision to have children and do our best with what can be a difficult situation. As in civilian society, I think the major burden of child-rearing is placed on the female whether she likes it or not... I have been told by several senior officers that I will never become a squadron commander because I'm married to another military member and have a child. But, these same people will evntually leave the Air Force before me so I can only hope this type of attitude changes before I retire...Until there are females in very senior policy making positions in the military I don't feel much will change. Also, nothing will happen until members of Congress take an interest in our group - right now, people like Rep. Pat Schroeder from Colorado have proposed bills that help civilian women but military women are always excluded...people do the mission and the female mother minority is an essential element in the Air Force's ability to "fly and fight"."

"It seems as though I never have enough time to get the things at home done that need doing...and most importantly, spending quality time with my daughter...I never mentioned having time for myself. There simply does not seem to be enough hours in the day."

(Use Family counseling or the Mental Health Clinic)... "Why be a marked person?"

"Perhaps you'd like to know what causes stress...supervisor criticized me for not having a very good military image when I was pregnant with my first son. When I explained to him that I couldn't really do much about that, he asked that I not wear a military uniform - mot even the maternity uniform, so that people wouldn't be tempted to associate me with the military...(I know a) young maintenance airman who works the line and is teased about getting hosed down and tormented about being "one of the guys."...guys comment about

being able to see a bra through the blue uniform and how much they enjoy it...the Colonel who, while you're TDY, tells you he has some good news and bad news about your billetting arrangements 1) you have a room and 2) he has the key to it and 3) social actions number is so-and-so and if you'd like to call it go right but don't forget who writes your OER...the key was jokingly given to the females involved...men who tell women they're not doing bad in a man's job and that they're really impressed with your duty performance and that you're going to get such and such a job because it's less stressful and the guys can handle that...former Wing Commander who told a certain female that she would never be a Squadron Commander and that she needed to get out and raise kids and let her husband's career do the soaring...having people talk about you getting pregnant to avoid the weight control program or to avoid four weeks of work after the pregnancy...the joy of trying to breastfeed a child, hold a full time job, and lose "baby-fat" all at the same time...(Suggestions)...the complaint system - particularly the social actions, inspector general complaint systems - should be

Defense Council could handle such complaints so that there would be less protection of the offenders and ...some justice...The services should seriously consider a maternal leave of absence of up to a year for new mothers. Skills should not be forgotten during that period of time and the child and the parent could use the time to bond...women should be given extra medical attention...(During) yearly OB/GYN exams...ask...how a woman is developing coping skills in this man's Air Force.

Maybe the woman might find the thought that someone cares enough to ask refreshing."

"Longer postpartum recover time for C-sections - no way is four weeks adequate. You are recovering from major surgery but you energy is totally depleted with the newborn demands. Despite additional leave time (2 weeks) - I was still way behind the power curve. (Suggests) ...mandatory aerobic exercise program starting at 8 weeks (after delivery) on duty time ... (maybe for only 3 months)...the mother would have more energy quickly, better self-image - all round just feel

better. Almost all the mothers in my duty station are run down and stressed out with chronic illness taking (them) away from duty...I don't think that mothers should be given any special treatment per say - but a little help in the first year would be an immeasureable improvement to the quality of life and productivity."

"More understanding bosses if child sick or that a 50 hour week should be sufficient enough that a "guilt trip" isn't placed on you if you can't be to work as early or stay as late as those without children or spouses...difficult to leave work at 5 p.m. to pick up your child, as others are working late and expect you to do the same. Its never easy but (I) do manage - after years of it though, priorities change and family becomes much more precious and it gets harder to sacrifice "family" for career. That is why I will get out of AD and go Reserves..."

"I'm fortunate to have an understanding husband who takes over completely at home when the need arises.

If not for him I would get out. He wants me to

continue my Air Force career and so provides me with constant support and encouragement."

"I feel great being an active duty Air Force mother. The demands are challenging. There is always something to look forward to. I am proud of myself and my happy baby."

"Less expensive child care. I can't afford \$100 a week for a 4 yr. old full time and a 7 yr. old part time!"

"If military married to military have dependents together they should be paid for it - after (all) both are the parents and ultimately responsible for the kids - we are both expected to go off to war at the drop of a hat but we are not compensated for it."

"Very stressful having to jumble all of the time.

Lots of times the children get the raw end of the deal."

"I manage by the grace of God and the warmth and understanding showed me by my husband, because my job is the pits."

"Round-the-clock child care in sufficient quantities. It is geared toward "office" workers and is totally inadequate."

"Provide dependent care coverage at the Child Care
Centers. I have to pay a babysitter to care for my
child so I have someone to take care of her in case
of recall or mobilization. The dependent care form
that is required by DOD requires two people in the
local area to sign for this responsibility. The
Child Care Center only cares for children during
normal duty hours and some exercises. This forces
people to utilize virtual strangers to care for
their children in the event of recall or
mobilization. These people are NOT monitored by
anyone in the parent's absence...I am a protective
mother who is not willing to leave my child with
just anyone, and who finds it difficult being "held
hostage" by babysitters that I must pay to sign the

dependent care form so that my responsibilities as defined by the DOD are taken care of."

"I don't expect any special consideration/concessions. That doesn't mean I don't appreciat an understanding supervisor who allow me to be flexible on my hours when I have a sick child or a school play, etc. to attend to."

"Whether in the AF or civilian sector trying to be a super woman is impossible - accepting these limitations are a must."

"...we go TDY a lot. And my husband a.l I both have to go. Nobody seems to care that I have a child that I have to leave. And you don't want to complain because then you get labeled as a trouble-maker."

"I pray a lot. With managing a family of 2, supporting a mother and a chronically dependent husband - I need a prayer."

"I feel my family tends to be the one to suffer...the military tries to make them less important."

"I feel the hardest and most heart breaking situation would be to get a remote assignment and leave your child. I personally couldn't do it."

"...it is important to me to keep my priorities straight at all times - 1. God, 2. Child, 3. Self, 4. Air Force. If at anytime the Air Force and I can't agree I'll get out."

"...I'm proud that I'm serving this country and that I enjoy my AF career and the fact that I am grateful for the benefits that my daughter and I are receiving...my secret to managing demands is patience and optimism."

"I've come to the opinion this year that the military is no place for a mother."

"I feel my pressures are not significantly greater than my civilian counterparts, other than being

geographically separated from my family support system. I have found my supervisors and my squadron generally supportive in allowing me to meet my special needs."

"I've never been anything but a single mother, so its natural for me. I resent implications that I am less capable or prepared to do the job because of my child. I also think the pre-requisite for me to fill out child care responsibility forms is putting their nose in my business."

"Stop treating us like dependents or outsiders."

(Service needed) "A support system geared towards teen agers."

"Provide <u>unpaid</u> maternity leave up to six months, <u>if requested by mother</u>. Realize that nursing moms work too and provide them with a hazard-free work area during the nursing period."

"Derferment from long separations between mothers and children under 5 years old. I went TDY for 2 weeks when my daughter was 13 months old. It was

the hardest, most stressful 2 weeks in my life...I could not handle being separated from my child at such a young age. The stress caused by being a military couple with a child and fear of a remote assignment has made my husband decide to separate from the military after 10 years."

"My income as a single parent of 2 children is not good. If I was to utilize the child care center I would double what I pay for a private sitter. One of my subordinates has an 8 month old girl. For one child of that age she pays the child care center \$413.00 per month. That is outrageous."

"I am very dedicated to my work to the point that at times I feel I neglect my family and their needs. I work 10-12 hours/day (if not longer sometimes) 5-6 days per week. When I'm home I'm too tired to give them any time and unfortunately yell at the kids a lot...when I'm working out regularly my stress level is much better balanced."

"My husband is a "house-husband". As such, he has no support system. He is not welcome in any of the

"wives" support groups. This places an added burden on me, whenever he is feeling dissatisfied with his role. Whenever I feel the pressures of my job building up, I try to take a few days at home to relax. I take 1-2 days of leave and go fishing with my family."

"More legal assistance pertaining to divorce, child support, etc. (needed)."

"My favorite example of the total irony of the situation is the fact that no licensed day care arrangement takes infants under 6 weeks of age and women are required to return to duty 30 days postpartum."

"Family is number 1. If family life is running smoothly, i.e. family needs are met - I feel I can give 200% to the Air Force. If my role as mother/spouse is threatened - is is much harder to give to my job."

"Get rid of commanders who constantly remind the military member/mother that he can put her out of

the AF under AFR 36-12 or 39-10 for inadequatly providing for dependent care. When the baby was sick, I did not dare ask my boss if I could take my son over to the hospital. My husband had to take off from work. He also had to stay home with him 2 days when he was sick. This upset me more and made me resent my boss and AF career. I have never given this boss or any other boss justification to act that way. I have always been dedicated to my career and the AF...Some commanders will not accept women in the AF and especially women with children. We are supposed to be "warriors", not mothers. I manage by portraying a tough "warrior" image and pretending I have little interest in my family or home life."

REFERENCES

REFERENCES

- Beacraft, C. (1987, June revised by C.

 Martinelli & L. Zurmuhlen). WEAL Facts:

 Minority Women in the Military. (Available from [Women's Equity Action League, 1250 I Street NW, Suite 305, Washington, D.C., 200051]).
- Beacraft, C., & Zurmuhlen, L. (1987, September).

 WEAL Facts: Military Women in the 80's.

 (Available from [Women's Equity Action League,
 1250 I Street NW, Suite 305, Washington, D.C.,
 20005]).
- Bild, B., & Havinghurst, R. (1976). Senior citizens in great cities: The case of Chicago.

 Gerentologist, 16, 1-88.
- Billings, A.G., & Moos, R. H. (1982). Work stress and the stress-buffering roles of work and family resources. <u>Journal of Occupational</u>

 <u>Behavior</u>, 3, 215-232.
- Bradburn, N.M. (1969). The structure of psychological well-being. Chicago: Aldine Publishing.
- Brazelton, T. B. (1988). Issues for working parents. In E. F. Zigler & M. Frank (Eds.),

- The parental leave crisis (pp. 36-51). New Haven: Yale University Press.
- Breslow, L., & Enstrom, J.E. (1980). Persistence of health habits and their relationship to mortality. Preventive Medicine, 9, 469-483.
- Bronfenbrenner, U. (1988). Strengthening family systems. In E. F. Zigler & M. Frank (Eds.),

 The parental leave crisis (pp.143-160). New Haven: Yale University Press.
- Brown, B. (1988, June, 9). Cover story Child care, counseling are priorities High marks for Air Force. <u>USA Today</u>, pp. 1A-2A.
- Brown, N., Muhlenkamp, A., Fox, L., & Osburn, M.

 (1983). The relationship among health beliefs,
 health values, and health promotion activity.

 Western Journal of Nursing Research, 5, 155163.
- Campbell, A. (1976). Subjective measures of well-being. American Psychologist, 31, 117-124.
- Campbell, A., Converse, P. E., & Rodgers, W. L.

 (1976). The quality of American life:

- <u>Perceptions</u>, <u>evaluations</u>, <u>and satisfactions</u>. New York: Russell Sage Foundation.
- Cleary, P.D., & Mechanic, D. (1983). Sex
 differences in psychological distress among
 married people. <u>Journal of Health and Social</u>
 Behavior, 24, 111-121.
- Cohen, S., Kamarck, T., & Mermelstein, R. (1983).

 A global measure of perceived stress. <u>Journal</u>

 of Health and Social Behavior, 24, 385-396.
- Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States. In S. Spacapan & S. Oskamp (Eds.), The social psychology of health (pp. 31-69).

 Newbury Park, CA SAGE Publications, Inc.
- Engel, N.S. (1984). On the vissitudes of health appraisal. Advanses in Nursing Science, 7, 12-23.
- Folkman, S. (1982). An approach to the measurement of coping. <u>Journal of Occupational</u>

 <u>Behavior</u>, 3, 95-107.
- Folkman, S., Lazarus, R. S., Dunkel-Schetter, C.,

 DeLongis, A., & Gruen, R. J. (1986). Dynamics

 of stressful encounter: Cognitive appraisal,

 coping, and encounter outcome. <u>Journal of</u>

- Personality and Social Psychology, 50, 3, 992-1003.
- Glenn, J. (1989, April). Women in the military committee report. Armed Forces District of NAACOG Newsletter.
- Gore, S., & Mangione, T. W. (1983). Social roles, sex roles and psychological distress: Additive and interactive models of sex differences.

 Journal of Health and Social Behavior, 24, 300-312.
- Gove, W. R., & Geerken, M. R. (1977). The effects of children and employment on the mental health of married men and women. <u>Social Forces</u>, <u>56</u>, 66-76.
- Haynes, S. G., & Feinleib, M. (1980). Women, work and coronary heart disease: Prospective findings from the Framingham heart study.

 American Journal of Public Health, 70, 133-141.
- Hibbard, J., & Pope, C. (1985). Employment status, employment characteristics, and women's health. Women and Health, 10 (1), 59-77.
- Hibbard, J. H., & Pope, C. R. (1987). Women's roles, interest in health and health behavior.

 Women and Health, 12 (2), 67-84.

- Hirsch, B. J., & Rapkin, B. D. (1986). Multiple roles, social networks, and women's well-being.

 Journal of Personality and Social Psychology,
 51 (6), 1237-1247.
- Hofferth, S. L., & Phillips, D. A. (1987). Child

 Care in the United States, 1970 to 1995.

 Journal of Marriage and Family, 49, 559-571.
- Holahan, C. J., & Moos, R. H. (1986). Personality, coping, and family resources in stress resistance: A longitudinal analysis. <u>Journal of Personality and Social Psychology</u>, <u>51</u> (2), 389-395.
- Hubbard, P., Muhlenkamp, A., & Brown, N. (1984).

 The relationship between social support and self-care practices. Nursing Research, 33, 266-270.
- Jaloweic, A. (1988). Confirmatory factor analysis of the Jaloweic Coping Scale. In C. Waltz & O. Strickland (Eds.), Measuring client outcomes (pp. 287-305). New York: Springer Publishing Co.
- Jaloweic, A., Murphy, S. P., & Powers, M. J. (1984). Psychometric assessment of the

- Jaloweic coping scale. <u>Nursing Research</u>, <u>33</u>, 157-161.
- Killien, M., & Brown, M. A. (1987). Work and family roles of women: Sources of stress and coping strategies. <u>Health Care Women</u> <u>International</u>, 8 (2/3), 169-184.
- King, A. C., & Winett, R. A. (1986). Tailoring stress-reduction strategies to populations at risk: Comparisons between woman from dualcareer and dual-worker families. <u>Family</u> <u>Community Health</u>, 9, (3) 42-50.
- King, A. C., Winett, R. A., & Lovett, A. B.
 (1986). Enhancing coping behaviors in at-risk populations: The effects of time-management instruction and social support in women from dual-earner families. <u>Behavior Therapy</u>, <u>17</u>, 57-66.
- Lazarus, R. S., & Folkman, S. <u>Stress, appraisal,</u>
 coping. New York, Springer, 1984.
- Makuen, K. (1988). Public servants, private parents: Parental leave policies in the public sector. In E. F. Zigler & M. Frank (Ed.), The parental leave crisis (pp. 195-210). New Haven: Yale University Press.

- McEntee, M. A. & Rankin, E. A. (1983). Multiple role demands, mind-body distress disorders, and illness-related absenteeism among business and professional women. <u>Issues in Health Care of Women</u>, 4, 177-190.
- Monat, A. & Lazarus, R. (1977). Stress and coping. New York: Columbia University Press.
- Muhlenkamp, A. F., & Brown, N.J. (1983,

 September). The development of an instrument
 to measure health practices. American Nurses
 Association Council of Nurse Researchers
 Conference, Minneapolis, Minnesota.
- Muhlenkamp, A. F., Brown, N. J., & Sands, D.

 (1985). Determinants of health promotion
 activities in nursing clinic clients. Nursing
 Research, 34 (6), 327-332.
- Nathanson, C. A. (1980). Social roles and health status among women: The singnificance of employment. Social Science and Medicine, 14A, 463-41.
- Nuckolls, K. B., Cassel, J., & Kaplan, B. H.

 (1972). Psychosocial assets, life criis and
 the prognosis of pregnancy. American Journal
 of Epidemiology, 95 (5), 431-441.

- O'Neill, C. P., & Zeichner, A. (1985). Working women: A study of relationships between stress, coping and health. <u>Journal of Psychosomatic Obstetrics and Gynaecology</u>, 4, 105-116.
- O'Rourke. (1986). The influence of social,
 demographics, employment and health factors on
 the psychological well-being of employed women.

 <u>Issues in Mental Health Nursing</u>, 8 (2), 121141.
- Palmore, E., & Luikart, C. (1972). Health and social factors related to life satisfaction.

 <u>Journal of Health and Social Behavior</u>, 13, 68-80.
- Pearlin, L., & Schooler, C. (1987). The structure of Coping. <u>Journal of Health and Social</u>

 <u>Behavior</u>, 19, 2-21.
- Polit, D. F., & Hungler, B. P. (1987). <u>Nursing</u>

 <u>research: Principles and methods</u> (3rd ed.).

 Philadelphia: J. B. Lippincott.
- Redland, A. R., Budgen, C. M., & Sands, D. (1989).

 Coping as a determinant of positive health

 practices in working mothers. (Under Review).

- Rupkalvis, C. A. (1988). The relationship of

 health with role attitudes, role strain, and
 social support in enlisted military mothers.

 Unpublished master's thesis, University of
 Arizona, Tucson.
- Segal, M. W. (1989, March). Military families:

 Social change, policy responses, and the
 future. In Restructuring for reality: An indepth look at selected issues. Symposium
 conducted at the meeting of the Radcliffe
 conferences on women in the 21st century,
 Radcliffe College, Cambridge, Massachusetts.
- Selye, Hans. (1956). <u>The stress of life.</u> New York: McGraw-Hill.
- Torphy-Donzella, E. (1988). <u>WEAL Facts: Parental</u>

 <u>leave in the U.S. Military</u>. (Available from

 [Women's Equity Action League, 1250 I Street

 NW, Suite 305, Washington D. C., 20005]).
- The United States Air Force in Facts and Figures An Air Force Almanac. (1988, May). Air Force
 Magazine, pp. 79-95.
- United States Department of Labor, Bureau of Labor
 Statistics. (October, 1980). A Perspective on
 women working: A databook. (Bulletin 2080).

- Uphold, C. R., & Susman, E. J. (1985). Childrearing, marital, recreational and work role
 integration and climacteric symptoms in midlife
 women. Research in Nursing and Health, 8, 7381.
- Verbrugge, L. M. (1983). Multiple roles and physical health of women and men. <u>Journal of Health and Social Behavior</u>, 24, 16-30.
- Walker, L. O. (1989). Stress process among
 mothers of infants: Preliminary model
 testing. Nursing Research, 38 (1), 10-16.
- Ware, J. E., Jr. (1976). Scales for measuring general health perceptions. Health Services

 Research, 11, 396-415.
- Wheeler, A. P., Lee, E. S., & Loe, H. D. (1983).

 Employment, sense of well-being, and use of professional services among women. American

 Journal of Public Health, 73 (8), 908-911.
- Woods, N.F. (1980). Women's roles and illness episodes: A prospective study. Research in Nursing and Health, 3, 137-145.
- Woods, N. F. (1985 a). Employment, family roles, and mental ill health in young married women.

 Nursing Research, 34 (1), 4-10.

Woods, N. F. (1985 b). Self-care practices among young married women. Research in Nursing & Health, 8, 227-233.

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